MSTCO

ACCOMPLISHMENT CO. For Construction Chemical Products

BITUPROOF 310 COLD APPLIED BITUMEN EMULSION



Description

Bituproof 310 is a heavy bodied bituminous compound applied to structures as a permanent barrier to water under pressure and as protection against the erosive effect of running water.

The formulation contains additives which assure proper adhesion to damp green concrete and masonry surfaces.

USES

Foundation Coating : for waterproofing below grade structural, foundation walls, floor walls, slabs, copings, cornices, ramps retaining walls, silos, steam rooms and vaults.

As a primer coat for Bitumen membranes.

Dilute Bituproof 310 with water at the ratio of 1:1 to make the primer.

ADVANTAGES

- Economical water barrier.
- Ready to use require no heating or thinning.
- will withstand temperature changes
- Adheres to damp surfaces
- Not affected by alkali, acid, or organic matters in soil.
- Does not sag or flow on walls.

ENGINEERING DATA

Complies with ASTM D 2397			
Color:	Brown		
Specific Gravity:	1 to 1.05		
Drying Time:	1 to 4 hours		
Solid Content:	55% W/W		

DIRECTIONS FOR USE

All surface to be waterproofed should be clean. Dirt and mud should be hosed off and oil or grease removed with solvent. Prime surface and allow to dry thoroughly, for at least two hours. Brush the coating on the surface to be waterproofed in a continuous unbroken film, free from pinholes and other breaks. Carry asphalt over the tops and edges of footings, parapets, etc. and work thoroughly into all grooves and joints.

PACKING

5 gallons pails and 200 liters drum.

COVERAGE

 $0.2-0.3\ \text{kg}/\ \text{m2}$ depending on substrate roughness And type.

CAUTION

Keep all asphalt away from heat or flame. Technical Services are available for assistance on any specific use and application.

STORAGE

12 months shelf life if stored in closed container in warehouse conditions.

HEALTH AND SAFETY

Bituproof 310 is safe, non-toxic and presents no health hazard. In case of contact with eyes irrigate with clean water.

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BITUPROOF 330



RUBBERIZED, EMULSIFIED BITUMEN COATING

Description

BITUPROOF 330 is a rubberized bitumen protective coating specially formulated for corrosion protection and waterproofing of concrete and metal substrates.

FEATURES

High grade rubberized bitumen -coating 12% R C. dries to a tough and resilient coating. The cured coating posses excellent adhesion to both cementitious and metal surfaces and good Elasticity > 100%.

STANDARDS

Complies with B.S 6949, B.S.2782-1 and ASTM D 2397.

APPLICATIONS

BITUPROOF 330 can be used as:

- General water proofer for most building materials including concrete, asbestos, cement, roofing felt, asphalt, wood, lead, zinc and corrugated iron.
- As a metal protector which provides protection against corrosion of pipes, steel structural works and other metallic surfaces.
- Waterproofing of wet areas, concrete foundations, retaining wall, column necks, ground beams and other structures liable to be back filled.
- As a curing membrane for hydration of cement.

ADVANTAGES

- Very effective on various substrates.
- Ready to use and easy to apply.
- Odorless and non-toxic.
- Excellent adhesion on prepared substrates.
- Resists chemicals and salts.
- Effective on damp surfaces.

TYPICAL PROPERTIES

Appearance:	Dark brown liquid drying to black coating
Density:	About 1.01 kg/liter.
Flash point:	Above 35 °C.
Toxicity:	Non-toxic.
Service temperature limits (dried film):	Between -20 to +60 °C.
Heat flow resistance:	The cured film will not sag or flow under service conditions.
Heat flow resistance: Chemical and water resistance:	The cured film will not sag or flow under service conditions. Resistant to water, salt water, dilute acids and alkalis.

COVERAGE

0.5 to 0.8 kg/m2 per coat. Two coats are recommended.

DIRECTIONS FOR USE

Surface preparation:

- Concrete surfaces must be clean, sound and free from oil, grease, dirt, dust and loose particles. It is desirable to dampen the surface with water if the concrete or blockwork is dry.
- Metal surfaces must be wire brushed to remove loose rust, mill scale etc. Wipe off oil and grease from the surface with a suitable solvent.
- It is recommended to use a primer coat of diluted BITUPROOF 330 at the rate of 0.1 to 0.25 kg/m2 to ensure proper bonding of subsequent coat.



DESCRIPTION

MitcoGrout 120 is highly durable, polymer-modified, non-shrink, colored grout formulated specifically for filing joints up to 12 mm wide.

USES

MitcoGrout 120 is suitable for filling 6 mm to 12 mm joints of quarry tile, pavers, ceramic, mosaic, facing stone, glass bricks and generally all natural or artificial stones and bricks, whether used for floor paving or wall cladding.

MitcoGrout 120 may be used on interior as well as exterior applications.

ADVANTAGES

- Fills wide joints without cracking or shrinking.
- High bonding strength.
- Lower water absorption.
- Available in a range of colors.
- Easy to apply.
- Single component.

COVERAGE

Coverage will vary depending on joint width and depth.

For joint of 8mm

LIMITATIONS

- MitcoGrout 120 SHOULD NOT BE USED WHERE CHEMICAL RESISTANCE IS REQUIRED; in such cases use 100% epoxybased grout.
- Do not mix or apply if ambient temperature is expected to drop below 5°C during installation or if rain is expected in the proceeding 24 hour period after application. Do not mix or apply when ambient temperature is expected to exceed 35 °C.
- Color variations in any Portland cementbased grout may occur due to variations in tile type, tile porosity, job conditions, and cleaning methods.

SURFACE PREPARATION

Tiles must be firmly attached to a sound subsurface and tile adhesive must be cured a minimum 24-48 hours prior to grout application. Remove any loose material or dust from tiles and joints. Remove all spacers. Joints must be uniform in width and depth.

MIXING

Start with 750 ml of cool water. Mix in 5 kg of grout with margin trowel or low speed mixer (less than 300 RPM) to a lump free, paste-like, non-pourable consistency. Do not use additives. Add up to 200 ml of water to adjust consistency. Let stand 10 minutes, re-mix before use. Periodically re-stir during application. Do not add additional water once mixed as this might weaken the material; inconsistency in the mixing ratio between batches will also cause color shade variations.

APPLICATION

Lightly dampen absorptive, porous tile with clean, cool water. Holding a rubber grout float at a 45° angle, force grout diagonally into joints until joints are completely filled. Remove excess grout using edge of float held at a 90° angle. Shaping joints and clean up can begin when grout can be slightly indented when pushed hard with your fingernail, about 10-20 minutes after application. Use a damp, small pore grout sponge in a circular motion to smooth joints and clean excess grout from tile. Use as little water as possible. Wait 2 hours before removing haze from tile with a soft, dry cloth.

CURING

Proper curing is necessary for grout to achieve maximum strength. After final soft cloth polishing, wait 2 to 4 hours, then lightly dampen installation with clean, cool water and cover entire surface for a minimum 3 days.

CLEANING

Clean all tools and equipment promptly with clean water.

STORAGE

Keep material covered and off the ground to prevent exposure to moisture. Store in a dry area. When stored at specified conditions in original unopened packaging, shelf life is 18 months from date of purchase.

SAFETY PRECAUTIONS

MitcoGrout 120 contains alkalis and protection should be provide to prevent contact with skin and eyes. Inhalation of dust must be avoided whilst mixing.

PACKAGING

25 kg bag.







Uses

Jolly board a compressible, non-extruding, bitumen impregnated fiberboard expansion joint filler suitable for forming joints in-site or pre-cast concrete components, and to protect waterproof membranes against physical or mechanical damage.

Forming structural expansion and separation joints in:

- Concrete pavements and floors
- Roads, ramps and runways
- Pedestrian areas
- Concrete retaining walls and bridges
- Concrete basement structures and Subways

Advantages

- Easy to handle, cut and tamp
- Resilient
- Will not extrude under compression
- High recovery
- Low distortion
- Rot Proof
- Robust

Standards compliance

Jolly board has independently tested and complies. With DTP specification for Highway Work, Dec 1991 series 1000 clause 1015.

Description

Jolly board a compressible joint filler and protection board manufactured from bitumen impregnated wood fibers. It is supplied in sheet form and is used to form and fill expansion joints in – site and pre – cast concrete construction.

Bitumen impregnation percent: 18-22%

Technical support

Jolly board Co. offers a comprehensive range of high performance, high quality construction products, in addition, Jolly Board Co. offers a technical support package to specifies and contractors which can include computer- aided design (CAD), standard details as well as on-site, technical advice from staff with unrivalled experience in the industry.

Properties

Form:	compressible sheet
Solids content:	100%
Recovery:	Greater than 85% (ASTM D1751)
Weathering test:	No disintegration (DTP Cl 1015)
Extrusion:	Less than 1.2mm (ASTM D1751)
Distortion:	Less than 0.7 mm (ASTM D944)
Brittleness:	Does not crack or shatter (ASTM D944)

The above properties were determined by independent tests on 25 mm thick samples.

Application Instructions

Slabs where used to form an expansion joint in onsite concrete, Jolly board shall be placed against the shuttering on the concreting side before the pour begins. Copper nails may be used to prevent displacement in joints in suspended slabs.

Alternatively, Jolly board may be bonded to the existing slab or previous pour using a suitable contact adhesive. Care should be taken not to contaminate surfaces of the sealing slot with the adhesive.

Joint sealing

A joint sealing slot can be formed by placing a removable timer former on top of the Jolly board. Alternatively, Jolly board can be installed to the full depth of the slab and cut back to the required depth subsequently using a power brush machine. This latter method is generally used for slabs which cannot be cleaned and sealed until all building construction has finished. Bitumen should be tamped down to ensure that it fills the joint completely and provides continuous support for the joint sealant.

Estimating

Sheet size: 1.22 m × 2.22 m

Storage

As with all organic materials there is a very slight risk of spontaneous combustion if stored long term in wet conditions store under cover, in the dry on a flat, clean and sound surface.

Precautions

Health & safety

There are no health hazards associated with Jolly board in normal use.

Fire

Jolly board is combustible and will catch fire if exposed to flame or other sources of ignition.



Mitco build T 22

High performance protective coating for concrete and masonry



Description

Mitcobuild T22 is a heavy duty colored cementitious coating, designed to protect atmospherically exposed, reinforced concrete structures against attack due to high moisture levels, acidic gases, sulphates and chloride ions.

Typical uses

- Bridge structures.
- Boundary walls.
- Residential, industrial and commercial interior and exterior floors.
- Concrete precast units.
- Concrete storage tanks.
- Fair face concrete structures.

Advantages

- High performance It acts as a barrier against carbon dioxide, water, sulphate and chloride ions.
- Lower cost It is more economical than metallic or asphalt water proofers and also needs less maintenance cost.
- Wide range of colors combines beauty finish with lasting protection.
- Becomes a permanent part of a floor or wall.
- Ease of mixing and application .It allows moisture to escape from structure.

Directions for use

A. Surface Preparation

Clean the surface by brushing, scraping or blasting to eliminate all defective materials and foreign matter and to remove old coating if exists. Chemically remove any efflorescence, form oil, mold, etc.

Repair all blow holes, cracks and surface irregularities using appropriate repair materials.

Dampen walls an hour before application and keep damp allowing moisture to soak in. Dense concrete should be wetted at least twice not less 30 minutes apart.

Surface must be damped (no free water) immediately ahead of application. If Mitcobuild T22 starts to pull on application this indicate that surface has not been properly wetted.

B. Mixing

Mixing should be completed by a drill. Always add clean potable water in a 25 liters capacity pail and then add the powder slowly while the drill on. Mixing duration should continue for 3 minutes to insure proper color and material dispersion.

C. Application

Brush- applies Mitcobuild T22 with stiff fiber brush. Scrub well into the damp wall filling all pores and finish with final stroke in one direction. Keep a wet edge. After 4 hours apply second coat.

Trowel- applies as above except for the second coat a dense paste made by decreasing amount of mixing water shall be used and applied by a trowel.

Sponge finish- when finish coat has tightened; float it to desired texture with a sponge or wood float. Do not apply when temperature may drop below 6 C or when wall is frozen.

Spray application- Mitcobuild T 22 can be sprayed using gravity feed air spray gun. Generally, a 1:1 mixing ratio by volume is recommended in this case.

Curing

Mitcobuild T 22 is self cured and so it does not need any curing using water.

Mitcobuild T 22 dries in approximately 30 minutes. Horizontal floor surfaces can be opened to minimum traffic in 2 hours and opened to heavy traffic after 24 hours.

Coverage

The coverage can vary depending on application technique, substrate and finish. As guidance it is in the range of 50 - 70 square meters per 20 kgs bag per coat. Recommended number of coats: two

Packaging

Mitcobuild T 22 is supplied in 20 Kg plastic bag.

Mitco build T 22

High performance protective coating for concrete and masonry

Storage & Shelf life

The product has a shelf life of 12 months if stored in unopened containers in a cool environment.

Health & Safety

Mitcobuild T 22 contains alkalis and there for protection should be provided to prevent contact with skin and eyes. Inhalation of dust must be avoided while mixing.

Flammability

Mitcobuild T 22 is a non-flammable material.





Mitco Epoxy Terrazzo is a heavy duty decorative flooring system that combines pigmented 100% solids epoxy resin with marble, colored glass, granite, or other approved aggregates.

It is trowel applied at 6mm- 15mm nominal thickness and ground and polished to expose.

A beautiful matrix of epoxy and aggregates.

Mitco Epoxy Terrazzo provides outstanding durability and wear resistance resulting in low maintenance job.

Mitco Epoxy Terrazzo is a 3 components system consisting of blended Epoxy resins, Activator and special colored aggregates.

Characteristics

- 100% solids content
- salt and seawater resistant
- resistant to most dilute acids/alkalis and petroleum products.
- pot life @25°C: 40 minutes
- cure times @25°C: dry 8 hours, light traffic 24 hours, full cure – 7 days.
- Adhesion to concrete ASTM D 4541> 1.5 N/mm2 concrete failure
- Compressive Strength: ASTM D 695 > 90 MPa
- Tensile Strength ASTM C 307
 15 MPa
- Shore D Hardness 7 days curing ASTM D 2240 80

Typical Uses

- Commercial and office complexes
- Lobbies and corridors
- Airports
- Government facilities
- Libraries
- Schools and universities
- Hospitals and other health care facilities
- Residential buildings

Surface Preparation & Application

The substrate must be clean and mechanically sound, free of all foreign material, including oil, dirt,

rust, laitance or other surface contaminants. All loose material must be removed.

Abrasive blast or acid etch substrate to remove laitance. Any concrete and cement screeds to preferably have a wood float finish with a minimum compressive strength of 25 MPa.

The epoxy resin can be used on its own as a primer at a surface coverage rate of 5 m2/L.

Thoroughly mix the resin and activator in the proportions given then add the aggregate using a slow speed mechanical mixer.

Pour and spread the mixture onto the floor to be coated to slow down the exothermic reaction and maximize the working pot life of the mortar.

Using a screed bar apply the epoxy screed to a nominal thickness of 6mm using flout.

Keep wiping the float with xylene.

Allow to cure for at least 12 hours then seal

Allowance must be made for expansion joints.

Recommended Temperatures

Application:	+ 7 to + 40 °C
Service:	- 20 to + 60 °C
Peak:	+ 65 °C

Shelf Life:

 \geq 12 months when stored in original containers.

Storage:

+ 10 to + 35 $^{\circ}$ C Store in a dry area away from heat and direct sunlight.

Precautions:

- Handle as per conventional epoxy resin systems.
- Avoid direct contact with system components.
- Wear safety glasses and gloves.
- For contact with eyes, immediately flush with water for at least 15 minutes and seek medical attention.
- Keep out of reach of children.
- Adhere to recommendations in any available safety data sheets



Mitco F 151 is a liquid foaming agent made of selected anionic surfactants. It is particularly designed for use in the production of foamed concrete with densities ranged typically from 300 to 1800 Kg/m3.

Mitco F 151 is formulated from carefully selected raw materials and is manufactured under controlled conditions to give consistent product.

Advantages

An aqueous solution of Mitco F 151 can be performed using foam generator which will produce a very stable foam for use in the production of foamed concrete.

Different doses of Mitco F 151 shall produce different densities of foam concrete with the assistance of compressed air.

Specification / compliance

Fully complies with the requirements of ASTM C 869.

Properties

- Specific Gravity: 1.03 at 20 C
- Appearance: Pale
- Chloride content: Nil
- Solubility in water: Soluble
- Storage life: 12 months from date of manufacture

Compatibility

Mitco F 151 can be used with all types of Portland cement including sulphate resisting cement and cement replacement materials.

Mitco F 151 should be added separately cement mix which contains other admixtures.

Method of use

Mitco F 151 is supplied ready for use. It should be added to concrete mixes in a suitable dosage to produce a specific density. This addition shall be during mixing process at the same time as the water. No extension of normal mixing time in necessary.

Addition

An addition level from 60 ML-600 ML of Mitco F 151 per 50 Kg cement could be used depending on the dry density needed.

The performance of Mitco F 151 is best assessed after preliminary tests on site.

Effect of over dosing

Over dosing with Mitco F 151 will normally produce an increase in air content and workability together with a loss in ultimate compressive strength.

Packaging

Mitco F 151 is available in drum of 200 liters.

Health and Safety

Mitco F 151 does not fall into any of the hazard classifications. However, it should not be swallowed or allowed to come in to contact with eyes. Mitco F 151 is water based materials and non-flammable.

Mitco F 151 should be stored in sealed containers in shaded areas with controlled temperature between 5 °C and 50 °C.

Storage

Mitco F 151 is supplied in nominal 210 Liters non-returnable containers.





Mitcoplug is a blend of high purity silica sands, cements and additives which, when mixed with water produces a rapid setting mortar with an initial set of around forty seconds.

Typical uses

May be used for rapid plugging of concrete elements, where water leaks must be stopped.

Advantages

- Low exotherm.
- Rapid water stopping ability.
- Pre- bagged only requires the addition of water.
- Excellent bond to the substrate.

Technical data

Initial set	40 sec @ 25 °C
Compressive strength	30N/mm2 @ 28 days
Density	2 kg / Lt

Application

Preparation

It is essential that adequate preparation is carried out prior to the application of Mitcoplug.

The area to which the mortar has to be applied, should have a depth of at least 15mm to avoid feather – edging The substrate should be free of dust and laitance and any other contaminants should be removed by high pressure water jet.

Mixing

The following proportions should be used for mixing:Mitcoplug3 parts by volumeClean water1 part by volume

Mix in a suitable container using a trowel. As the product set time is short, only mix sufficient material which can be used in the time available.

Application

Hand place the mortar ensuring good compaction against the substrate and hold in place with a gloved hand until initial set has been achieved.

Limitations

When used at temperatures above 35 °C the material should be pre-conditioned in a cool environment and the use of chilled mixing water should be considered to achieve an acceptable working time.

Equipment Cleaning

Mitcoplug should be removed immediately from tools etc. using clean water.

Cured material can only be removed by mechanical means.

Packaging

Mitcoplug is supplied in 5kg plastic pails.

Storage & shelf life

Mitcoplug has a shelf life of 6 months when stored in original bags in a cool dry environment.

If stored at high ambient temperatures or at high humidity the shelf life will be reduced as much as 50–60%.

Health and safety

Mitcoplug being based on cement should not come into contact with skin or eyes. Inhalation of dust should be avoided

Mitco Quartztop

Monolithic concrete surface hardener



Uses

Mitco Quartztop provides an extremely hard abrasion resistant surface to fresh concrete floors. Application by the dry shake method ensures the hard-wearing surface bonds monolithically to the base concrete.

Advantages

- Supplied ready to use.
- Contains hard-wearing aggregates which provide a hard-wearing surface.
- Forms monolithic bond with fresh concrete base.
- Easy and economical.
- Non-metallic aggregate.

Description

Mitco Quartztop surface hardening compound is a quality controlled, factory blended powder which is ready to use on - site. It consists of selected and graded guartz /silica aggregate Portland cement and special additives to improve workability, providing a material which is easy to trowel into the surface of fresh wet concrete. Mitco Quartztop cures monolithically to provide a dense, non-porous surface which is extremely hard wearing and abrasion resistant. Monolithic cure ensures that problems normally associated with thin (granolithic") screeds e.g. curling, shrinkage. cracking, etc.are completely overcome.

Design criteria

Base concrete

The base concrete should have a minimum cement of 300 kg /m3. The concrete mix should be designed to minimise segregation and control bleeding, although some limited bleed is desirable to ensure sufficient moisture is available to wet out the Mitco Quartztop.

It is advisable to control w/c below 0.55 so that shrinkage cracks are minimized. The base concrete should have an on – site slump of between 75 and 100 mm.

The base concrete should be laid and compacted in accordance with good concrete practice. taking care to ensure accurate finished profile and minimum laitance build up. Particular attention should be paid to bay edges and corners to ensure full compaction of the base concrete - see under application instruction.

Properties

Abrasion resistance:

Abrasion resistance of Mitco Quartztop has been - tested as per the described methods in BS 784 – . 1953 using a taber abrader and showed that Quartztop gives improved abrasion resistance of over 160 % compared to conventional concrete floor.

Compressive strength:

At water contents equivalent to those obtained in practical application the typical 28 day compressive strength Mitco Quartztop cubes is 60 N/mm2.

Hardness (Mohs scale):

The selected aggregates contained within Mitco . Quartztop have a hardness value of more than 7 on . the mohs original scale.

Application instructions

Mitco Quartztop is applied at an application rate of 2-5 kg/m2. It is recommended that the floor be marked off into bays of known area. Sufficient material should then be laid out to meet the recommended spread rate.

Application of Quartztop should begin without delay when the base concrete has stiffened to the point when light foot traffic leaves an imprint of about 3-6 mm. Any bleed water should now have evaporated but the concrete should have a wet sheen.

On large floors it will be necessary to work progressively behind the laying team to ensure application at the correct time. Mitco Quartztop is applied in two stages.

Mitco Quartztop

Monolithic concrete surface hardener

a) The first application is made using 2/3 of the material required for the eventual end use. Quartztop is evenly broadcast onto the concrete surface. When the material becomes uniformly dark by absorption of moisture from the base concrete, this first application can be floated.

Wooden floats or, on large areas, a power float, may be used. It is important, however, that the surface is not overworked.

b) Immediately after floating, the remaining Mitco Quartztop is applied evenly over the surface at right angles to the first. Again, when moisture has been absorbed the surface can be floated in the same way as before.

Final finishing of the floor using blades of a power float can be carried out when the floors has stiffened sufficiently so that damage will not be caused.

Timing of the application of Mitco Quartztop is important and care should be taken to ensure adequate labour, machinery and material is available to complete the whole area while sufficient moisture is available to fully react with the powder to provide a good dense finish . Conversely, the full benefit will not be achieved if the material is applied too early when bleed water is still present.

Any addition of water to wet out the surface on either the first or second application of Mitco Quartztop will be detrimental to the overall quality of the floor.

Cleaning

All equipment should be washed with clean water immediately after use and before the material has hardened.

Estimating

Mitco Quartztop: Coverage

25 kg bags

2-5 kg/m2

Mitco Quartztop: Supply

Storage

If protected from the environment in original undamaged packing, the shelf life of Mitco Quartztop is 12 months

Precautions

Health and safety

Mitco Quartztop contains cement powders which when mixed or become damp, release alkalis which can be harmful to the skin and eyes.

Avoid inhalation of dust.

Avoid contact with skin and eyes. Wear suitable gloves and eye protection. In case of contact with skin, wash with water. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

For further information, see Material Safety Data Sheet.

Fire

Mitco Quartztop is non – flammable.

Curing

Proper curing of concrete floors treated with Mitco Quartztop is essential to the physical properties of the finished floor. The most effective method of curing is to use Mitcocure WB curing membrane, which conform to ASTM C309 specifications. However in indoor areas where curing conditions are less arduous and breakdown of the membrane slower, alternative approved methods of curing such as polyethylene sheeting or water ponding are acceptable.





Mitcotile 444 is a cementitious-based powder in gray or white color, formulated as a high-performance fixing adhesive of ceramic, terrazzo tiles and stone, in internal or external application.

Uses

Mitcotile 444 is suitable for use as a tile adhesive in kitchens, showers, wet process areas and in totally submerged conditions like swimming pools.

Advantages

- Formulated to suit Middle East Conditions.
- Interior or exterior use.
- Economical.
- High bond strength.
- For vertical and horizontal
- Application.
- Easy to use.
- Water resistance.
- Can be used in totally submerged conditions.

Properties

Density	: 1.65
Color	: gray or white
Service temp.	: (-20 °C) to (+100 °C)
Pot life	: 80 mints.

Yield

25 Kg bag mixed with 5 liters of water yields 15.5 liters of mixed adhesive.

Fire

Mitcotile 444 is non-flammable.

Coverage

5 Kg / m2 at 3mm thick layer.

Application

Mitcotile 444 should be applied to surfaces that are dry, clean sound and free of oil, grease, release agent and curing compound.

Tile also should be dry and free of contaminants that could reduce the adhesion. Concrete or blockwork walls should be sufficiently old to ensure that all shrinkage movements had occurred.

Mixing

Added Mitcotile 444 to clean water at a ratio of 5:1 by weight. Mix a full bag using a forced action mixer for 4 minutes or till a uniform lump free consistency is obtained.

Application

Mitcotile 444 should be spread on the substrate at a 2-3 mm uniform thickness. Press tile into place with slight twisting motion ensuring a full contact between tile back and the adhesive.

Remove any excess of adhesive from tile face with a damp cloth before it sets.

Grouting should not commence before 24 hours from fixing tiles.

Storage & Shelf life

Mitcotile 444 has a 12 months shelf life if stored in dry, shaded conditions.

Cleaning

Mitcotile 444 should be removed from tools & equipments with water immediately after use.





Mitcotile 555 is a cementitious-based powder in gray or white color, formulated as a high performance fixing adhesive of ceramic, terrazzo tiles and stone, in internal or external application.

Uses

Mitcotile 555 is suitable for use as a tile adhesive in kitchens, showers, wet process areas and in totally submerged conditions like swimming pools.

Advantages

- Formulated to suit Middle East Conditions.
- Interior or exterior use.
- Economical.
- High bond strength.
- For vertical and horizontal
- Application.
- Easy to use.
- Water resistance.
- Can be used in totally submerged conditions.

Properties

Density	: 1.65
Color	: gray or white
Service temp.	: (-20 °C) to (+100 °C)
Pot life	: 80 mints.

Yield

25 Kg bag mixed with 5 liters of water yields 15.5 liters of mixed adhesive.

Fire

Mitcotile 555 is non-flammable.

Coverage

5 Kg / m2 at 3mm thick layer.

Application

Mitcotile 555 should be applied to surfaces that are dry, clean sound and free of oil, grease, release agent and curing compound.

Tile also should be dry and free of contaminants that could reduce the adhesion. Concrete or blockwork walls should be sufficiently old to ensure that all shrinkage movements had occurred.

Mixing

Added Mitcotile 555 to clean water at a ratio of 5:1 by weight. Mix a full bag using a forced action mixer for 4 minutes or till a uniform lump free consistency is obtained.

Application

Mitcotile 555 should be spread on the substrate at a 2-3 mm uniform thickness. Press tile into place with slight twisting motion ensuring a full contact between tile back and the adhesive.

Remove any excess of adhesive from tile face with a damp cloth before it sets.

Grouting should not commence before 24 hours from fixing tiles.

Storage & Shelf life mints.

Mitcotile 555 has a 12 months shelf life if stored in dry, shaded conditions.

Cleaning

Mitcotile 555 should be removed from tools & equipments with water immediately after use.





Mitcobond AR is a liquid Water based dispersion, based on a styrene – acrylic polymer system. It is used to bond freshly poured concrete to old one and to modify cementitious mixes significantly increasing bond, tensile and flexural strengths, whilst improving resistance to abrasion, chemical attack, water and vapor transmission.

Uses

Resurfacing old concrete or granolithic floors, leveling floor screeds from 1-4 cm thick.

- Waterproof renders.
- High strength bonding of concrete.
- High strength repair and patching mixes.
- Waterproof slurry coats to level and seal walls, floors and tanks.

Advantages

Mitcobond AR dramatically improves adhesive, compressive and tensile strength of cementitious mixes.

- Self-leveling, flowing consistency mixes can be produced to enable placement under difficult conditions.
- Greatly increased impact and abrasion resistance.
- Mixes containing Mitcobond AR have low permeability, and are suitable for waterproof sealing and lining of tanks, pools, etc.
- Chemical resistance property is greatly improved.

Typical Properties

Appearance:	White liquid			
Specific Gravity:	1.03	3		
Storage Life:	12	months	in	sealed
	cont	tainers		

Method of Use

Surface preparation

In all situation the surface to be treated or coated, most be clean, sound and free from dirt, dust and other loose particles.

It is recommended that edges of concrete repair areas be squared cut back to allow for maximum adhesion. Steel in area to be repaired should be rust free. Concrete surfaces should be saturated with water before application of Mitcobond AR.

In the majority of applications using wet mixes, bond coats are not required, but for semi - dry mortars, a bonding coat should be used.

Dosage

Mitcobond AR can be used neat or diluted with water Dosage of use vary depending on application type.

Application

1. Bond coating objective

Cement:	50 kg
Mitcobond AR:	10 liters (diluted 1:1 with water)
Coverage:	0.5-1 kg/m ²
Application:	Mix the cement into the Mitcobond AR until cohesive.

Use a stiff brush to apply a thick coat to the wetted surface.

Application of concrete renders and mortars should take place while the bond coat is still wet.

2. Waterproof Slurry objective

Mix Design:	
Cement:	50 kg
Sand 0-0.3 mm:	25 kg
Mitcobond AR:	8 Itrs (Diluted)
Coverage:	2-3 kg /m2

Application

Apply the polymer modified slurry mix to the well dampened substrate using bruch or trowel in two coat at a coverage of 0.5-1 mm per coat.

- 3. Concrete / screed topping objective
- Mix Design:

Cement:	50 kg
Sand:	150 kg
Gravel 3mm:	150 kg
Mitcobond AR:	2-4 ltrs
Water:	quantity needed to
	make it workable.



Application:

Dampen / wet the prepared substrate, apply a bond coat and while still wet place the screed or render mix onto the floor, spread and level using a wooden float and compact. finish with a steel float.

Curing

Thorough curing is essential on all exposed surfaces, particularly in dry or windy conditions. Use water or polyethene sheeting or curing compound such as Mitco cure WB, to prevent quick drying and cracking.

Packaging

Mitcobond AR is supplied in 5 liter, 20 liter containers.

Storage

Store in closed containers, at temperatures of (10 °C-40 °C) for maximum storage life.





Mitcobond SBR is a modified styrene- butadiene copolymer latex specifically designed for use with cement mixes. It is used as an admixture with mortar and concretes to increase resistance to water penetration, improve abrasion resistance and durability.

Advantages

- Improves cement mixes flexibility.
- Improves mortars and toppings impermeability and adhesion.
- Increased durability, toughness and abrasion resistance.
- Improves chemical resistance of the mix.
- Non-toxic. Can be used with potable water.
- Greatly reduced shrinkage.
- Similar thermal expansion and modules properties to concrete.

Uses

- Floor toppings and screeds.
- concrete repair as an admixture and as a bonding agent.
- water proof renders and slurries.
- Fixing bricks and tiles.

Properties

The result below shows improvement achieved when adding 10 liters of Mitcobond SBR to 3:1 sand, cement mortar against control mix of same proportions.

The method	Test result (SBR)	Control
Compressive Strength (28 days)	37 N/mm2	27 N/mm2
Tensile strength	4.1 N/mm2	2.7 (28 days)
flexural strength (28 days)	11 N/mm2	7.5 N/mm2
Adhesion	Excellent to concrete steel and brick	
Chemical	Improved to	
resistance	high extent	
Resistance to water pressure	Excellent under 35m head	
Co-efficient of thermal expansion	12.85*10 (-8)	

Instruction for use

Surface preparation:

Surface to which Mitcobond SBR is applied should be clean, sound and free from loose particles, oil, grease steel rust and curing compound.

Surface priming

The substrate should be soaked with water and any excess standing water should be removed before applying the priming slurry. The bonding slurry shall be prepared by mixing 1½ parts of cement to 1 part of Mictobond SBR. Using a stiff brush, apply the slurry well into the damp surface. The repair mortar, topping or render must be applied on to the wet slurry without delay.

Guide to application

- Vertical surface rendering apply Mitcobond SBR modified mortars in 6 mm thick layers on to the wet slurry primed surface.
- Topping, screeds to horizontal surface screeds and topping patches could be applied in thickness from (6 mm - 60 mm) on to the slurry primed surface while it is still wet.

Addition rate :

10 liters of Mitcobond SBR per 50 Kg cement and 75 Kg sharp sand plus 75 Kg granite chips.

Curing

Proper curing of Mitcobond SBR mixes is important.

Compatibility

Mitcobond SBR is compatible with all types of cements. Mitcobond SBR could be used with other concrete admixtures but should be added separately to cement mixes.

Storages

Mitcobond SBR has a shelf life of 12 months if stored in dry condition in the original drums.

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Mitcobuild FC Single component polymer modified cementitious repairing product



Description

Mitcobuild FC is a pre-bagged, one-part cementitious mortar modified with acrylic powder polymer. The product is designed to be applied as a skim coating to provide a fair-faced finish to rough and uneven concrete surfaces. It is also used as a repairing material for filling cracks, grooves and blowholes in concrete floors.

Typical uses

Mitcobuild FC is designed to improve the smoothness and regularity of concrete and masonry surface such as in the following situations:

- Restoring concrete surface defects such as blowholes, grooves and cracks.
- Used prior to the application of a coating to ensure a continuous film of material.
- correcting errors with respect to line and level.
- To provide a uniform finish over repaired surface.

Advantages

- Excellent adhesion to concrete.
- Free from chloride additives.
- No need for a primer or a curing agent in normal conditions.
- Resistance to shrinkage cracking.
- Easy to use, needs only the addition of clean water.
- Smooth finish with low permeability

Packaging and yield

A single 25 Kg bag of Mitcobuild FC will provide approximately 15 liter of mixed materials.

At 3 mm thick a 25 Kg bag will cover approximately an area of 5m2 .

Technical Data

Typical result @ 20 °C Working life Setting time Fresh wet density 30C 45 mins 30 mins 45-80 mins 30-60 mins 1800 Kg / m3

Application instructions

Preparation

It is essential that adequate preparation is carried out prior to the application of Mitcobuild FC.

Grit blasting is recommended to ensure the removed of all laitance, grease and oil.

The prepared substrate should then be thoroughly soaked with clean water several times in order to be in a saturated condition prior to the application of Mitcobuild FC.

Mixing

6.5 - 7 liters of water maximum is required for each 25 Kg bag of Mitcobuild FC.

The product should be mixed in a forced action electrical mixer. The water should always be placed into the mixing vessel before the addition of the Mitcobuild FC. The entire content of the bag should be emptied into the vessel whilst mixing is in progress. Mixing should continue for 4 minutes until a uniform, lump free consistency is produced.

Application

Mitcobuild FC may be applied in one layer as a thin section render up to 3 mm thick. The product may also be used for filling blow holes up to 10 mm deep.

The material should not be over worked and be left to partially set before final finished. This finishing may be improved by flicking on a very small amount of water prior to troweling.

Mitcobuild FC

Single component polymer modified cementitious repairing product

Storage and life

Mitcobuild FC has a shelf life of 12 months when stored in original bags in a cool, dry environment.

Health and Safely

Mitcobuild FC contains alkalis and production should be provided to prevent contact with skin and eyes. Inhalation of dust must be avoided whilst mixing.

Curing

In normal application condition, the material need not any typed of curing, however the material should be protected from extreme condition such as hot, windy or freezing conditions.

Equipment cleaning

Clean all tools with water immediately after use. Hardened material can be removed using mechanical means.



Mitcobuild MC 500

Hich fluidity micro – concrete

Description

Mitcobuild MC 500 is a one component, pre-packed, micro-concrete. On addition of the specified quantity of clean water, the product produces a highly fluid micro-concrete, suitable for the repair of concrete structures. Mitcobuild MC 500 incorporates additives that control shrinkage and reduce water demand.

Typical uses

Mitcobuild MC 500 is designed to reinstate large concrete sections, or to be used where access is difficult or congestion of reinforcement limits the use of traditional materials. The product may be used to provide repairs in a variety of situations, such as:

- Structural repairs to columns.
- Replacing sections of concrete beams.
- Making good areas of honeycombed Concrete.
- Providing hard wearing repairs to concrete floors.

Advantages

- No compaction required.
- Low permeability inhibits the ingress of Chlorides and carbon dioxide.
- Excellent bond strength to adequately prepared concrete substrates.
- May be placed by pump.
- Chloride free.
- Achieve smooth and neat surface finish.

Technical data

Typical results @ 20 °C (0.135 water / powder ratio) Compressive strength (BS 6319: Pt 2. 1985) 3 davs 35 N/mm2 7 days 55 N/mm2 65 N/mm2 28 days Flexural strength (BS 6319: Pt 3. 1990) 28 days 8.0 N/mm2 Tensile strength (BS 6319: Pt 7. 1995) 28 days 4 N/mm2 Water Absorption ISAT (BS 1881: Pt 208. 1996) 10 minutes < 0.020 ml/m2/sec 30 minutes < 0.015 ml/m2/sec 1 hour < 0.003ml/m2/sec 2 hours nil

Setting Time (BS 4550: Pt 3 1978) Initial Final Linear Shrinkage (ASTM C 531: 1995) 7 days Thermal expansion Coefficient (ASTM C 531: 1995) Fresh Wet Density Chloride diffusion

M&TCO

2.5 hours

4.5 hours

0.043%

10.5 * 10-6 /C 2290 Kg/m3 1.2 *10-10 cm2/sec

Application

Preparation

It is essential that adequate preparation be carried out prior to the application of Mitcobuild MC 500.

The boundary of the repair area should be cut using a concrete saw to provide a neat edge to the repair with no feather edging. It is recommended that the saw cut be approximately 10 mm deep. The area to be repaired may then be broken out up to the prepared boundary.

Repairs using Mitcobuild MC 500 should be generally at least 50 mm, as a minimum depth, with a maximum of 200 mm, although greater depths may be used depending on the design of the structure being repaired.

The substrate should be cleaned thoroughly to ensure the complete removal of dust, reinforcement corrosion products, oil and grease. The prepared surface should be protected if any delay is anticipated prior to the application of the repair compound.

All reinforcement that shows signs of corrosion must be fully exposed to an adequate depth behind the bar, to allow ease of access for the fluid repair compound. The steel should be sandblasted to bright metal immediately prior to the application of zinc rich epoxy coating. Apply one coat of zinc rich epoxy to the cleaned steel, ensuring full coverage, and allow drying before commencing with the repair application.

Substrate Priming

Normally, it will only be necessary to pre-soak the substrate with clean water for a period of at least one hour, prior to the application of the repair compound.

Obviously all water should be drained from the formwork prior to commencing with the application of the repair material. Mitcobuild MC 500 should be applied while the substrate remains damp.

Hich fluidity micro – concrete

Where it is deemed necessary to seal in Chlorides, which could not be removed during the preparation stage, the use of epoxy bonding agent is recommended which completely seals the substrate The product is applied as two-coat system, the second coat being applied as soon as the first is tack free. Subsequent application of Mitcobuild MC 500 must be carried out while the second coat of primer is still tacky.

Mixing

For mixing single bags, it is acceptable to use a 25 liter steel pail as a mixing vessel and mixing carried out using a slow speed electric drill (350/600 rpm) fitted with a mixing paddle. Where larger quantities of material need to be mixed at one time, a compulsory mixer is required. Do not attempt to use a free-fall mortar mixer, as the shear imparted is insufficient to adequately mix the repair compound. Place the accurately measured 3.4 liters of clean mixing water into the mixing vessel and slowly add the contents of the bag of repair compound, while the mixing paddle is running. To ensure complete and thorough dispersal, the product must be mixed

for 5 minutes minimum. Mixing of part bags is not recommended.

Application

The mixed material should be poured immediately to obtain the full benefit of the fluidity provided. Placement by pump requires the usual pre-grouting of the pump line prior to pumping the repair compound.

Curing

Any exposed areas not protected by formwork must be cured using a proprietary curing compound. Once the formwork is removed, the total repair area should be cured by the same process.

This is of extreme importance at temperatures in excess of 30 C, a secondary protection should also be considered to completely seal the repair area against drying conditions that could render the repair completely ineffective.

Packaging and yield

Product	Packaging	Coverage
Mitcobuild	25 Kg bags	1.25m2@ 10mm thick
MC 500		(12.5 It of mixed product)

Equipment cleaning

Mitcobuild |MC 500 should be cleaned from equipment using water immediately after application.

Storges & shelf life

Mitcobuild MC 500 has a shelf life of 12 months when stored in original packaging in a cool, dry environment.

Health & safety

Mitcobuild MC 500 contains alkalis and protection should be provided to prevent contact with skin and eyes.

Inhalation of dust must be avoided whilst mixing.

Gloves and a dust mask must be worn. If skin contact occurs, wash with plenty of soap and water. Contact with the eyes should be treated by immediately washing with copious amounts of clean water followed by medical attention.

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Mitcobuild SG 60

High Strength ,Polymer Modified Structural Repair Compound

Description

Mitcobuild SG 60 is a pre-bagged, ready to use structural repair mortar in powder form. After the addition of the correct amount of water a high strength thixotropic non shrink mortar is produced

Typical uses

Mitcobuild SG 60 in designed to provide a structural grade repair mortar particularly in situation where imperviousness and abrasion resistance are required such as:

- Floor repairs in industrial areas, especially if exposed to oil or lubricants.
- Repairs for concrete that is in contact with chloride or sulphate solutions such as in marine environments.
- Repairs to structural concrete elements, e.g. Reinforced beams and columns.
- Repairs on highly trafficked surface particularly transition strips adjacent to mechanical bridge joints.

Advantages

- High bond strength to both steel reinforcement and to concrete.
- Can be applied by spray machine enabling rapid application of large quantities.
- High compressive strength with coefficient of thermal expansion similar to concrete
- Compensated for plastic and long term shrinkage.
- Low permeability providing protection against the ingress of chloride and carbon dioxide.

Packaging

Mitcobuild SG 60 is supplied in 25 Kg water proof bags.

Technical Data

Appearance	grey powder containing micro
	fine fibers
Fresh wet density	2290 Kg/m3 Compressive
	strength at 20 °C – BS
	6319:Pt 2
1 Day	18 N/mm2
7 days	32 N/mm2

28 days	40 N/mm2
Flexural strength BS	
6319	
28 days	9.00 N/mm2
Coefficient of thermal	11.2 * 10-6/C

Expansion

Water absorption ISAT	
BS 1881:	Pt 5
10 minutes:	0.007 ml/m2/sec
2 hours:	< 0.005 ml/m2/sec

Application instructions

Preparation

It is essential that adequate preparation is carried out prior to the application of Mitcobuild SG 60 This preparation should ensure the removal of all grease, oil and loose material.

The area to be reinstated using Mitcobuild SG 60 should be cut back to a depth of at least 6 mm. In order to avoid feather edging.

All corroded steel in the repair area should be completely exposed and thoroughly cleaned mechanically. Once the reinforcing steel has been cleaned it should be coated immediately with one continuous coat of Zinc based epoxy Substrate priming.

For most situation, the substrate should be primed with Mitcobond AR. Initially the surface should be thoroughly saturated without standing

water prior to the primer being applied the primer should be applied in brush or spray ensuring intimate contact with the substrate. Mitcobuild SG 60 can be applied as soon as the primer becomes tacky.

Mixing

For mixing a single bag, a 25 liter steel pail is suitable, using a slow speed electric drill (350/600rpm) fitted with mixing paddle place (2.75 - 3.5) liters of clean water (depending on the consistency needed) in the mixing vessel and slowly add the contents of the bag with the mixer running. The product should be mixed for a minimum of 5



Mitcobuild SG 60

High Strength, Polymer Modified Structural Repair Compound

minutes until a uniform, lump free consistency is produced.

Application

The material should be applied by a gloved hand to ensure thorough compaction around the reinforcement and against the edges of the reinstatement area. The repair is then trowel finished.

Minimum temperature for application is 5 °C.

At temperature above 35 °C, the materials should be stored in shade and cool water used for mixing.

Storage and shelf life

Mitcobuild SG 60 has a shelf life of 12 months when stored in original bags in a cool, dry environment.

Health & safety

Mitcobuild SG 60 contains alkalis and protection should be provided to prevent contact with skin and eyes. Inhalation of dust must be avoided whilst mixing.

The product can be applied up to 60 mm in thickness in vertical situation and be applied in 110 mm layers in the horizontal plane. The material should not be applied in thickness less than 6 mm.

Spray application

Mitcobuild SG 60 may be spray applied. In this case higher thickness up to 5 cm per layer in the vertical situation can be achieved.

Curing

Mitcobuild SG 60 should be cured using Mitcobond AR liquid bonding agent, or any other suitable material.

Cleaning

Clean all tools with water immediately after use. Hardened materials can be removed using mechanical means.

Coverage

Yield approximately 14.5 liters of mixed product.

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Mitcocord is closed cell polyethylene foam supplied in cord form for use as a back-up material for joint sealants. It is available in diameters from 6 mm to 50 mm.

Typical uses

Joint sealant back-up cord in concrete and brickwork designed joints where cold applied sealants are used.

Advantages

- Economical.
- Easy to install.
- Excellent absorption & chemical resistance.
- Provides a bond breaker function and minimum strain shape for joint sealants.
- Not impaired by climatic extremes.

Technical data

Density	0.029 g / cm3
Dimensional stability	Excellent
Thermal conductivity	0.026 Kcal / mhc
Water absorption	0.0051 mg / cm2 max
Temperature stability	-10 °C to +80 °C
Flexibility	Excellent
Color	White / gray

Application

Size Selection

Push fit into a sealing slot using a blunt tool to avoid damage to the cord. The diameter of the cord should be approximately 25% greater than the width of the joint so that the cord fits tightly in the joint, providing support for the sealant and ensuring the correct sealant profile

Availability & uses

6mm	cord diameter	for	5mm joints
10mm	cord diameter	for	8mm joints
15mm	cord diameter	for	12mm joints
20mm	cord diameter	for	16mm joints
25mm	cord diameter	for	20mm joints
30mm	cord diameter	for	25mm joints
40mm	cord diameter	for	32mm joints
50mm	cord diameter	for	40mm joints

Storage & Shelf life

Indefinite, when stored in cool, dry conditions.

Health & Safety

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There are no health hazards associated with the normal use of Mitcocord.



A spray applied membrane for preventing water loss in concrete. They are ready for use and simple to apply.

Mitcocure WB is a water based concrete curing compound based on a low viscosity wax emulsion which when applied to a fresh laid concrete surface, the emulsion breaks to form a continuous, nonpenetrating white coating.

This dries to form a continuous clear film which provides a barrier to moisture loss, ensuring more efficient cement hydration, improving durability and reduce shrinkage.

Mitcocure WB complies with ASTM C 309-81 type 1-D curing compound.

Uses

Mitcocure WB is used mainly for structural concrete surfaces where subsequent surface treatment will be required. It will retain moisture in concrete for effective curing.

Mitcocure WB is sprayed onto newly laid concrete surfaces to form a thin barrier against premature water loss. Without disturbance to the normal setting action, the concrete is then allowed to cure and achieve maximum properties.

Mitcocure WB is particularly useful in large areas of exposed concrete, such as:

- Highways,runways and taxiways.
- Roof decks.
- Retaining walls.
- Pre-stressed beams and piers.
- Irrigation canals/channels.

ADVANTAGES

- Reduces incidence of plastic cracking.
- Ensure achievement of desired strengths.
- Minimises shrinkage.
- Reduces dusting.
- Increases frost resistance.
- Economical method of curing.

Properties

Appearance	white emulsion which form a clear
	film on drying
Density	0,98 kg/l. ~ 1.00 kg/l
Packaging	200 kg drums
Storage	Store free from frost and naked
	flame
Shelf Life	12 months from date of production
	if stored properly in the
	original unopened packing.
Application temp	min. 5 C ^o

Application

Coverage

The rate of coverage depends on wind, humidity and temperature. As a general guide: 0.15 - 0.20 kg/m2.

Surface conditions

The surface water of the newly laid concrete must have evaporated (between $\frac{1}{2}$ to 2 hours depending on temperature etc.)

Method of application

Mitcocure WB has been designed for spray application to the newly laid concrete. A thin film of Mitcocure WB is applied to the whole surface using hand or motor operated spray gun.

Cleaning

Clean all tools and equipment immediately after use by flushing through with water. If spray nozzles become blocked with wax particles these may easily cleaned with solvent or white spirit.

Limitations

After application of Mitcocure WB, the treated area must be protected from rain for at least 2-3 hours.

Precautions

Health and safety

Wear suitable protective clothing, gloves and eye protection. Do not breathe vapor.

Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately.

Fire

Mitcocure WB is water based and non-flammable product.



MitcoFloor hardener

Dry shake, monolithic non metallic surface hardener



Description

Mitcofloor hardner is a cement-based trowel in product for incorporation into new concrete slab floor.

It is a blend of cement, special aggregates and selected additives to provide optimum performance. Mitcofloor hardner is applied to plastic concrete and the resulting finished surface in extremely dense, abrasion resistant and hard wearing.

As the application of Mitcofloor hardner results in the floor curing monolithically with the topping excessive shrinkage, cracking etc. is avoided.

Typical uses

Mitcofloor hardner can be used in any application where an uncoated concrete is required to provide high abrasion, skid and impact resistance.

It is particularly used to give hardwearing surface in warehouses, factories, power stations, airports and military establishment.

ADVANTAGES

- Non-metallic aggregate.
- Extremely hard wearing aggregate Resulting in high resistance to abrasion and impact resistance.
- Monolithic bond to host concrete.
- Resistance to oils and grease.

Packing

25 Kg bags premixed and 50 Kg bag pure hard aggregate.

premixed

Coverage

- 3-5 Kg/m2
- 2- 3 Kg/m2 pure aggregate to be mixed with cement at site.

Technical Data

- Compressive strength: 70 N/mm2 @ 28 days
- Abrasion resistance: Test data indicate that concrete floors treated with Mitcofloor hardner exhibit an abrasion resistance 200% better than that exhibited by 30 N/mm2 concrete on its own.
- Hardness:
 > 7.0 (Mohs hardness Scale)
- Impact resistance: (BS 8204: part 1) Tests gave results 3.5 times better than those required of a screed designed to withstand heavy traffic.

Application instruction

Mitcofloor hardner should be applied at a rate of 5 Kg/m2.

It is recommended that the floor be marked off into bays of known area so that sufficient materials should then be laid out to meet the recommended spread rate.

The base concrete slab should have a thickness not less than 80 mm and the concrete mix should be formulated as follows:

Water / cement ratio	< 0.50
Cement content /m3	> 300 Kg
Slump	> 75 mm
Air entrainment	< 2%

Mitcofloor hardner must be applied as soon as the base concrete has reached the stage where light foot pressure leaves an indentation of around 3 mm or as soon as it is practicable to apply the product correctly without damaging the plastic surface of the base slab.

On large application it is essential that sufficient operatives are available to work at a controlled rate behind the concreting team. Mitcofloor Hardener is applied in two applications.

The first application utilizes two-thirds the rate and is broadcast evenly across the surface but ensuring the material lands nearly vertically rather than spread horizontally. Once applied the free water in the base concrete will slowly darken the applied material and once this stage is complete wood

MitcoFloor hardener

Dry shake, monolithic non metallic surface hardener

floating of the surface can commence. Do not over trowel at this stage.

The remaining one third of the material can now be applied and moisture allowed then completed.

Once the floor has attained a degree of stiffness at which high light foot trafficking dose not mark the surface, steel floating and / or power floating can progress.

Curing

Mitcocure is recommended as a curing membrane for Mitcofloor Hardener and should be spray applied immediately following final troweling of the surface.

Limitation

Mitcofloor hardner must not be used in floor areas which are likely to be exposed to acids or any other product which is known to attack Ordinary Port land cement concrete.

Storage & shelf life

The shelf life of the product in sealed bags is topically in excess of twelve months.

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Mitcoflor 200

High Strength Cementitious Self-Leveling Under layment.



Description

Mitcoflor 200 is a Portland cement based, with high strength, fast setting, self-leveling concrete which accepts chemical (acid) stains, dyes and polishing. It is designed to be used as a cover and wear resistance surface.

Mitcoflor 200 can be installed from feather edging to 20mm thickness in one go. It is trafficable within 16 hours from the application.

ADVANTAGES

- No need to troweling, due being self-leveling materials.
- High bond to various substrates
- Rapid commissioning and serviceability trafficable in 16 Hours.
- No contains protein additives and no gypsum in order to Maintain the workability (healing properties) for 25 minutes (depending upon Application conditions).
- Inactive to growth of mold or mildew.
- High flowable and ideal for pouring and pumping.
- Non-shrinkage, hence, does not cause dusting.
- Shrinkage compensated.
- Accepts several coloring systems integral colors, reactive (acid) stains. Dyes (water or solvent).
- Easy application enabling high productivity with super finishing Can be polished with different polishing machines.

SUBSTRATE REQUIREMENTS

- Clean the areas and remove all unsound concrete, grease, oil, paint, asphalt, tar and free from any contamination materials that will inhibit performance.
- Substrates must be stable, solid and structurally sound.
- Substrate must be mechanically profiled by shot-blasting, sand blasting or scarifying to achieve a rough profile. Acid etching or chemical cleaning is not acceptable.
- After cleaning and profiling, test for MVER (moisture vapor emission rate).
- Make sure do not apply Mitcoflor 200 over coal, tar or asphalt waterproofing systems.
- Expansion or control joints must be reflected through Mitcoflor 200.

Application STEPS

- Mitcoflor 200 must be applied over fully saturated substrate that is at least at 12 °C.
- Important Recommendation: Mitcoflor 200 must be applied within 2 hours of saturation process in order to reach a required bond with the substrate. Furthermore, particularly important that the prepared substrate is not contaminated at all prior to the installation of Mitcoflor 200.

MIXING & INSTALLATION

- Before the application of Mitcoflor 200, close all doors, windows and protect it from direct sunlight.
- Adequate amount of interior air movement and ventilation is required to obtain an even pattern of the curing process.
- The "mixing station" should be set up outside of the area to be poured so as no dust can affect the pouring area or create a bond breaking situation. The dust caused due to mixing may cause delamination.

Manual Installation

- Mix one bag of Mitcoflor 200. For each bag, add 4.5 liters of clean potable water into a mixing drum.
- Add the bag of Mitcoflor 200 slowly while mixing at full speed with a paddle mixer attached to a heavy duty ½ in drill (min. 650rpm)
- Mix completely for a minimum of 2-3 minutes until the mix is lump free or until the mix is homogenous adding no additional water. It is important to keep the water, addition at the lowest possible level that produces a freeflowing mix.
- At high temperatures it is recommended that the mixing water is iced to chill.
- Pour the blended Mitcoflor 200 on the floor and disperse with a leveling gauge rake set to the proper depth required. Follow this as quickly as possible by smoothing with the proper smoothing tool. Make sure that you keep the pouring ribbons fresh in order to maintain the leveling properties. Each ribbon poured on the floor should be meshed into the previously poured ribbon and keep it fresh and workable.

Mitcoflor 200

High Strength Cementitious Self-Leveling Under layment.

 The crew who are pouring and finishing the blended material on the floor should wear spiked shoes to avoid slippage on the wet material and reduce any foot marks into the freshly poured material.

Pumping Installation

- Most pumps have a capacity for a certain number of bags per hour. When pumping, determine that number of bags, multiple it by4.5 liters and add your water flowmeter at the prescribed number of liters per hour. Using only one section of hose, This technique and visual aid supply to both pumping and manual installation. Should these things be noticed immediately reduce the water.
- If you see a heavy water discharge to the top of the material or a discoloration and/or white streaking you are over watering the material. This technique and visual aid supply to both pumping and manual installation.
- Should these things be noticed immediately reduce the water?

CURING

Mitcoflor200 is self-curing. Which is, do not use damp curing methods or curing and sealing compounds. Protect it from excessive heat conditions during its initial curing stage. Turn off all forced ventilation and radiant heat systems forthefirst24 hours or after the application of sealers/coatings.

Maintenance

After completing the application, the applicator should provide the client with maintenance instructions. If floors become slippery due to animal fats, oil, grease, or soap film, clean and rinse thoroughly. Properly sealed Mitcoflor200is easily cleaned with neutral soaps or detergents. Routine mechanical scrubbing is recommended for all surfaces having a non-skid texture. Treating the surface with a floor finish coat is optional. Long periods of heavy traffic may cause wear patterns necessitating application of a finish coat.

Clean up

Clean skin with soap and water. Tools and equipment should be cleaned with Xylene or Lacquer thinner.

Coverage

One bag yield 13.8 liters. So will cover 7.3 m2 with 19mm thickness.

Shelf life

The shelf life Mitcoflor 200 is one year from date of manufacturing.

Technical Properties

Density	1.8 kgs/litre
Mixing Ratio	4.5 – 5 litres/ bag
Compressive strength	
24 hours	3000 psi
7 days	5000 psi
28 days	6000 psi
Flexural strength	1300 psi
Initial setting time	90 minutes

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High Strength, Shrinkage compensated Cementations Grout



Description

Mitcogrout C 70 is a ready to use, one part cementitious grout. The addition of clean mixing water produces a non-shrink grout of predictable performance for gap thickness up to 12 cm.

Typical uses

Mitcogrout C 70 may be used in grouting application, where a flowable grout is required and where consistency of performance is essential. Typical applications are as follows:

- ÷. Concrete repairs.
- ÷. Anchor bolts and filling tie-bar holes.
- Void filling underneath machinery Basement . like generators and turbines.
- Caulking of concrete pipes.
- Void filling between old and new Concrete.
- Bonding slurry on a construction joint before pouring the new concrete.

ADVANTAGES

- Non Shrink.
- High early compressive strength Allowing minimal downtime on Machinery.
- Extremely low permeability.
- Consistent performance.
- High bond strength to concrete and Steel.

Standard Compliance

U. S. Crops of Engineers CRD -C 621-82 A, and ASTM C 1107 – 91.

Technical Data

When mixed with 3.85 liters of water/25Kg bag the following mechanical properties shall obtained:

Compressive strength

compressive subright		
BS 1881: Pt 116		
1 day	28 N/mm2	
7 dovo	40 N/mm2	

7 days	48 N/mm2
28 days	60 N/mm2

 Flexural strength BS 4551 1 day 28 days 	5.6 N/mm2 14 N/mm2
 Setting time BS 4551: Pt 3 	
Initial set	4 hours at 23 C
Final set	6 hours at 23 C
– – – – – – – – – –	0000 1/ / 0

- Fresh wet density 2280 Kg/m3
- Expansion characteristics: Expansion of up to 2% can be achieved.

Packaging and yield.

Mitcogrout C 70 is supplied in 25 Kg waterproof bags.

Each bag when mixed with 3.85 liters Of water, will provide approximately 13 liters of mixed material.

Application

Preparation

It is essential that adequate preparation be carried out prior to the application of Mitcogrout C 70. This preparation should ensure the removed of all grease, oil and loose material from both the concrete and base plate surfaces.

To avoid absorption and reduction in flow characteristics, it is essential that the prepared substrate is soaked with clean water for a few hours prior to grouting. Before placing the grout, any water remaining on the surface should be removed.

When filling a void between two surfaces, the void should be continuing in order not to prevent the grout from flowing. It is essential also to avoid trapping air, hence reducing the total contact area. All formwork should be sealed to prevent loss of grout during pouring.

Mixing

Mitcogrout C 70 must be mixed using a slow speed electric drill fitted with a mixing paddle. This method is suitable for small quantities, for larger quantities it may be necessary to consider the use of a grout pump, which is available upon request. It is essential to ensure a continuous flow of grout once pouring commences.

The specified water quantity (3.75 - 4.50 liters / 25 Kg bag) should be measured in an accurately graduated vessel and added to the mixer pail. Mitcogrout C 70 is then added slowly whilst mixing.

A mixing time of not less than 5 minutes is required to ensure the adequate dispersal of the ingredients. For thickness greater than 12 cm in a single pour, it is recommended to add clean small-sized aggregates in order to absorbed the heat of hydration.

(Mitcogrout C 70: aggregate ratio of mixing is 1:1)

Application

The grout should be poured immediately after mixing in order to take full advantage of the high flow properties. The mixed product should always be poured from one side and the process continue till the grout appear from all other sides in order to prevent air entrapment. Once the grouting has been completed, all exposed areas of grout should be cured immediately using water or Mitcobond AR.

Cleaning

Clean all tools with water immediately after use. Hardened martial can be removed using mechanical means.

Applied temperature range

Minimum5 CMaximum35 CMitcogrout C 70 contains alkalis and protectionshould be provided to prevent contact with skin andeyes. Inhalation of dust must be avoided duringmixing.





Mitcogrout 222 is a fine colored powder which, when mixed with water, gives a smooth creamy paste for grouting tiles. It is a blend of selected cements, fillers, polymers and powdered colors.

Advantages

- It suits Middle East conditions.
- Water resistant (suitable for submerged conditions).
- Fungus resistant.
- For internal and external application.
- Available in attractive colors.

Standards

ISO 13007-3 – Cementitious Adhesives and grouts specifications.

Packaging

Mitcogrout 222 is supplied in 5 Kg sealed bags.

Application

Mix Mitcogrout 222 with water. Use 1.6 liters of water for each 5 Kg bag. Mix till you got a lump free consistency and leave the material for 10 minutes before use. Then apply paste to tile joints using a squeegee. Remove excess material with a damp cloth or sponge.

To get a watertight grout in swimming pools.

Coverage

0.25 Kg per square meter, although this is very dependent on spacing and type of tiles.

Equipment Cleaning

Mitcogrout 222 should be removed immediately from tools using clean water.

Storage & Shelf life

Mitcogrout 222 has a shelf life of 12 months when stored in sealed bags in dry condition.

Health & Safety

Mitcogrout 222 is a cementitious based material and it is alkaline in nature. It should not come into contact with skin or eyes. Inhalation of dust should be avoided.

Fire

Mitcogrout 222 is non-flammable.

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Mitcoguard is a Flexible thixotropic and Elastomeric coating based on acrylic co-polymers. Applied as a liquid and it cures to form a durable protective and waterproof membrane.

Uses

Mitcoguard is designed to be used for waterproofing all types of roofs, including concrete, timber, asbestos, zinc sheets, asphalt, tiles and polyurethane foam.

Mitcoguard colored is also used for coating to Asphalt yards, playing and tennis courts.

Advantages

- 1. Flexible-capable of bridging Cracks even at low temperatures.
- 2. Single component, water thinnable, making working tools easy to clean.
- 3. Easily applied by roller brush or by spraying.
- 4. Available in different colors.
- 5. U.V stable.
- 6. Suitable for horizontal and vertical Applications.
- 7. Good adhesion on various substrates.
- 8. Texture or smooth finish.

Density: 1.2 at 20 °C.

Application

Mitcoguard is in paste form but is nevertheless easy to work, so that application can be by roller, long haired brush or spray gun. Even an amateur can apply them, although working with high-pressure spray-gun should be left to the expert.

The surface to be coated should be clean and dry, porous or badly weathered surface should be primed using Mitcoguard thinned with water (20% by volume).

Before using the compound on steel surfaces, an anti – corrosion primer should be applied.

To seal cracks and holes before waterproofing, a mixture of the roofing compound and fine sand (about 1-3) can be use as filler.

Drying

The drying naturally depends on the substrate, the air temperature, temperature of the surface, the relative humidity and the coating thickness. For example, at about 25 °C and 65% relative humidity the expected drying time would be about 3 hours per coat.

Flexibility

Roof coverings are subject to great stresses because of temperatures changes. Considerable expansion needed, Mitcoguard can still expand about 20% even at temperature of (-10 $^{\circ}$ C), and a coat thickness of some 1.5 mm

Coverage

Depending on the substrate profile 2.5 - 4.0 m2/liter per coat, two coat are recommended .

Storage

Store Mitcoguard protected from direct Sunlight. Shelf life is 12 months in closed unused sealed containers.

Packaging

Mitcoguard is available in 18-liter pails and in drums of 150 liter.

Precautions

Mitcoguard is non-toxic, but people with sensitive skin should wear Protective gloves. In the event of contact with the eyes, wash with water for at least 5 minutes and immediately seek medical assistance.

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Mitcomort EP

Heavy duty epoxy repair mortar



Description

Mitcomort EP is a heavy-duty repair and screeding system for hard wearing areas. The system bonds to damp surfaces and cures under water.

Mitcomort EP is a 3 components system consisting of blended Epoxy resins, activator and aggregate.

Characteristics

- natural grey colour, 100% solids content.
- salt and seawater resistant.
- resistant to most dilute acids/alkalis and petroleum products.
- pot life @25 °C: 40 minutes.
- cure times @25 °C: dry 8 hours, light traffic -24 hours, full cure - 7 days.
- coverage rate 1 m2/L per mm coating thickness.
- will cure under cold and damp conditions.

Uses

Primer for substrate linings such as polyurethanes, polyesters and epoxides on damp or green concrete.

Can be applied to substrates such as steel, concrete, fiber glass, asbestos cement,

ceramic tiles and most other building materials.

Repair of deteriorate concrete floors in thicknesses from 1mm-150mm.

Surface Preparation & Application

The substrate must be clean and mechanically sound, free of all foreign material, including oil, dirt, rust, laitance or other surface contaminants.

All loose material must be removed.

Abrasive blast or acid etch substrate to remove laitance. Any concrete and cement screeds to preferably have a wood float finish with a minimum compressive strength of 25 MPa.

The epoxy resin can be used on its own as a primer at a surface coverage rate of 5 m2/L.

Thoroughly mix the resin and activator in the proportions given then add the aggregate using a slow speed mechanical mixer.

Pour and spread the mixture onto the floor to be coated to slow down the exothermic reaction and maximize the working pot life of the mortar.

Using a screed bar apply the epoxy screed to a nominal thickness of 6mm using flout.

Keep wiping the float with xylene.

Allow to cure for at least 12 hours then seal Allowance must be made for expansion joints.

Recommended Temperatures

+ 7 to + 40 °C
- 20 to + 60 °C
+ 65 °C

Shelf Life:

 \geq 12 months when stored in original containers.

Storage:

+ 10 to + 35 °C Store in a dry area away from heat and direct sunlight.

Available Sizes:

15 Litre kits (34 kg).

Physical Properties

Test	Test Method	Units	Value
Density	ASTM	kg/L	2.3
	D1298		
Compressi	ASTM	MPa	96
ve Strength	D695		
Flexural	ASTM	MPa	34
Strength	D790		
Tensile	ASTM	MPa	18
Strength	D638		
Bond	ASTM	-	concrete
Strength	D7234		fails

Mitcomort EP

Heavy duty epoxy repair mortar

Precautions

- Handle as per conventional epoxy resin systems.
- Avoid direct contact with system components.
- Wear safety glasses and gloves.
- For contact with eyes, immediately flush with water for at least 15 minutes and seek medical attention.
- Keep out of reach of children.
- Adhere to recommendations in any available safety data sheets.





Mitco MRA 21 is a specially formulated blend of volatile hydrocarbon solvent and fatty acids, which give superior performance to conventional mold oils. The fatty acids react with water in the concrete to form a thin water repellant barrier, thereby enabling easy stripping of the formwork from the concrete surface.

Uses

Mitco MRA 21 is used on metal, wood and plastic forms for quick, easy and clean removal of forms from the concrete.

Features / Benefits

- A light brown colored liquid. supplied ready for use. Thinning is not required.
- Low viscous, easily spray able liquid.
- Non Staining and suitable for use with white cement
- prevents rust forming on steel forms and can also be used to protect concreting plant after use.
- Helps to reduce the cleaning time for formwork and concrete plant.
- Allows air, which normally be trapped at the inter – face of the concrete and formwork to escape during vibration. The reduces the surface imperfections and also the need for remedial surface treatments at a later stage.

Directions for use

Surface Preparation: on new formwork, no preparation is required: on used formwork preparation is required: on used formwork preparation is as follows:

Steel and plastic formwork: All rust, grease and cement paste should be removed before the application of Mitco MRA 21.

Wooden formwork: All adhering cement paste should be removed and the surface scrapped to remove any old mold oil that may be present.

Application

Mitco MRA 21 Can be applied by either brush or cloth. However the best results are obtained when application is by conventional mold oil spray equipment.

Mitco MRA 21 should be applied thinly and evenly. Excessive application or uneven application could be deleterious to the concrete finish. On steel, plastic or previously treated.

Wooden forms on coat of Mitco MRA 21 is adequate. For new untreated wooden formwork a second coat be required if the formwork is not used within 2 - 3 days.

Coverage:

Coverage of Mitco MRA 21 will depend on the type form on which it is used. On new rust free steel forms rates of up to 60 m2 / liter will be obtained but on absorbent wooden forms this may be reduced to 10 m2 / liter.

Shelf – Life

2- Years when stored in original unopened pails/drums.

Packing

20 - liter palls and 200- liter drums.

Precautions / Limitation

Mitco MRA 21 is flammable (Flash point 41 °C). Use in well – ventilated conditions and avoid prolonged skin contact. The use of an oil resistant barrier cream is advised.

Mitcoplast SP 650

Concrete Superplasticise



Description

Mitcoplast 650 is a high efficiency superplasticising admixture, specially designed for concreting at low water cement ratios.

It is used to impart extremely high workability to concrete, enabling large or difficult pours to be made with little or no vibration.

Mitcoplast 650 functions by adsorption onto the surface of the cement grain resulting in a deflocculating action and a uniform dispersion of the particles. This leads to an increase in workability of the concrete.

Mitcoplast 650 conforms to BS 5075 part III and ASTM C494, Type F and G admixtures.

Advantages

- Substantial increases in workability can be obtained by a direct addition of Mitcoplast 650 to a concrete mix having slump in the range 50 mm - 100 mm. Often, the magnitude of this increase is such that the concrete
- becomes self-compacting and little or no vibration is required to achieve dense, void – free concrete.
- Concrete mixes contain Mitcoplast 650 remain cohesive.
- Concrete containing Mitcoplast 650 is especially suitable for self – levelling concrete. In this application, minimum extensions of setting time and little or no loss in compressive strength are observed.
- Mitcoplast 650 can be used to effect high range water reductions, leading to a considerable increase in compressive strength.
 Impermeability and durability are correspondingly improved.
- It may be employed to modify mix designs, in order to achieve cement economies.

Typical properties

Appearance:	Dark Brown liquid
Specific Gravity:	1.18 at 20 °C
Air Entrainment:	Nil
Chloride Content:	Nil
Freezing Point :	-5 °C
Storage life in manufacture's drums :	12 months from date of manufacture
Bulk Storage:	12 months from date of delivery

Compatibility

With cements: Mitcoplast 650 can be used with all types of Portland, Pozzolanic and Blast Furnace in cements. It can also be used in mix designs containing fly ash and microsilica.

With other admixtures: Mitcoplast 650 should not be premixed with other admixtures. The performance of the material may be affected by the presence of other chemicals if premixed prior to addition to the concrete mix.

Addition Rates

Range: 0.5 - 1.5 Itre per 100 kg cement by weight of cement. As with most products of this type, the magnitude of the effect obtained with Mitcoplast 650 is governed by the specific nature of the concrete and its constituent materials.

Effects of overdosing

The effects of overdosing of Mitcoplast 650 are a function of the degree of overdose. When producing high workability concrete overdosing will increase the level of workability and may induce the onset of segregation depending on the extent of the overdose, an increase of the setting time may also occur.

Dispensing

It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment details of which are available upon request.



Concrete Superplasticise

Packaging

Mitplast 650 is supplied in 25 and 210 liter free, non-returnable containers.

Storage

Mitplast 650 Should preferably be stored in sealed conventional containers and protected from the direct sun light.



Mitcoplast P 300



Water Reducing plasticizing and set retarding admixture for Concrete (ASTM C - 494 type B and D)

Description

Mitcoplast P 300 admixture is a ready – to use aqueaous solution of modified lignin sulphonic acid and organic salts

It contains no chlorides and its specific gravity is 1.2

Mitcoplast P 300 is designed to produce the highest compressive flexural and tensile strength of concrete by means of water reducing and through control of the cement hydration.

Uses

Mitcoplast P 300 plastcizer is used wherever a delay in setting time will ensure sufficient time for delivery, placement, vibration or compaction, particularly for:

- Hot weather concreting where delayed set will ensure sufficient placement time and improve concrete quality.
- Transit mix concrete where setting time on long hauls must be extended.

Advantages

The use of Mitcoplast P 300 produces fresh concrete with greater plasticity and workability, easier to place and more finishable than is plain concrete or concrete treated with another admixture.

Mitcoplast P 300 is also designed to delay and control the setting time of concrete. These features will give the following advantages:

- At the same workability.
- At the usual addition rate the initial setting time of concrete will be extended by 2 to 4 hours at 20 °C.
- Water reduction provides strength increases at all ages.
- Economy of mixing due to improvement in strength.
- Improved impermeability and reduced shrinkage in the hardened concrete.
- At the same water / cement ratio.
- Better control of hydration provides strength increases 10% to 20% at all ages especially in the hot weather concreting.
- Improved concrete flow over an untreated mix
- Better vibration response and finish.

Chemical Action

Mitcoplast P 300 acts to optimize the rate and degree of hydration of the Portland cement in the concrete.

Mitcoplast P 300 also acts as a dispersing agent and lessens the natural interparticle attraction between cement grains in water.

The combination of water reduction and controlled hydration optimizes the rate of formation of gel, the paste that "glues" or binds together the individual portions of the concrete aggregate.

This controlled rate of gel formation adds to the water retention and internal cohesiveness of the mix, reducing bleeding and segregation while increasing the workability, placeability and finishability of the concrete.

Mitcoplast P 300 while not reducing the total heat hydration development during the reaction of the cement and water, does have a marked effect on the rate of heat evolution spreading it out over a longer time reducing harmful shrinkage often found in hot weather concreting.

Addition Rate

Excellent results are obtained using an addition rate of 0.3 - 0.8 ltr/100 kgs. cement depending on job conditions and delay required. Higher dosage is needed where more water reduction is required.

Dispensing Equipment

A complete line of accurate automatic dispensing equipment is available.

Mitcoplast P 300 must be introduced to the mix with the water.

Compatibility with Other Admixtures

Mitcoplast P 300 is compatible in concrete with Air Entraining Admixture.

EACH ADMIXTURE SHOULD BE ADDED SEPARATELY TO THE MIXER.

Mitcoplast P 300

Water Reducing plasticizing and set retarding admixture for Concrete (ASTM C - 494 type B and D)

Engineer's Specification :-

Concrete shall be designed in accordance with ACI standard Recommended practice for Selecting Proportions for Concrete (ACI 211.1- 74). The water-reducing plasticizing admixture shall comply with ASTM designation C - 494 Type B and D admixture and shall be Mitcoplast P 300 as manufactured by Accomplishments Co. for Construction chemical products or one proved to be equivalent. It shall be used in Strict accordance with the manufacturer's recommendations.

Overdosing Effects

An overdosing of Mitcoplast P 300 will result in significant retardation of the initial set. However the ultimate strength will not be affected on condition that proper curing methods are observed.

Packaging:

Mitcoplast P 300 is available in 10,000 ltr. bulk tanks, 1000 ltr containers or 210 ltr. Drums.





Mitcoplast W2 is permeability reducing admixture for use in all types of mortar, plaster and concrete mixes. It is particularly suitable for use in ready – mixed concrete and all types of structural concrete.

Mitcoplast W2 Is formulated from carefully selected raw materials and is manufactured under controlled conditions to give a consistent product. It is designed to give maximum reduction in permeability without inhibiting side effects. This results from a positive chemical action which creates a network of insoluble water-resistant material within the pores of the cement matrix.

Advantages

- Permeability reduction can be achieved without significant changes in strength.
- Mitcoplast W2 can be added by means of an automatic dispenser.
- The durability of concrete finishes is increased since the penetration of rain and dew is greatly reduced giving improved resistance to frost damage.

Method of use

Mitcoplast W2 is supplied ready for use and may be added to the mix water prior to addition to the aggregate.

Mitcoplast W2 will not entrain air when used in wet concretes but will plasticise the mix and cause a significant increase in workability. It is necessary to reduce the free water content of concrete mixes containing Mitcoplast W2 to maintain constant workability. If the free water content is not reduced, then an increase in workability will result and there may be some loss in compressive strength. No extension of normal mixing time is necessary.

Typical properties

Specific Gravity:	1.15 at 25 °C
Chloride Content:	Nil
Freezing Point:	<- 5 °C
Storage life in	12 months from date of
manufacture's drums:	manufacture.

Bulk Storage:

12 months from date of delivery.

Technical Service

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

Compatibility

With cements: Mitcoplast W2 can be used with all types of Portland, Pozzolanic and Blast Furnace cements. It can also be used in mix designs containing fly ash and microsilica.

Addition Rates

Range: 1.0 % by weight of cement.

The performance of Mitcoplast W2 is best assessed after preliminary tests on site using the actual mix under consideration.

Effects of overdosing

Test have shown that the addition of Mitcoplast W2 to concrete mixes at up to double the recommended level of addition causes slight loss in strength and minimal additional air entrainment.

Mitcoplast W2

Integral Water proofing Admixture

Packaging

Mitcoplast W2 is supplied in 20 and 210 liter free, non – returnable containers.

Storage

Mitcoplast W2 should preferably be stored under shade in temperature between 5 - 40 °C.



Ready To Use Colored Plaster



Description

Mitcoplaster 600 is a ready mixed polymer modified cementitious decorative coating. It is applied directly to the block walls, bricks and concrete. It consists of a selected aggregate, cement, special additive and colored powders. It is available in a wide range of colors and many textures that give different beautiful looks.

Typical Uses

Mitcoplaster 600 is used as a finish top mortar coat which can applied directly to the block walls. It replaces the traditional plaster layers.

Advantages

- Can be applied internally and externally.
- Can be applied by spray machine enabling rapid application of large quantities.
- It adheres to any substrate.
- It can bridge hair cracks due to its high elasticity.
- One component ready to use material that need only the addition of water.
- It exhibits high wear and weather resistance.
- Available in various colors and textures.

Application instructions

Surface Preparation

It is essential that the substrate be in a clean and rough condition. All oil, dirt, debris, paint and unsound concrete must be removed. Prior to the application of Mitcoplaster 600 the surface should be pre-soaked with clean water. Excess standing water should be removed.

Mixing and Application

Mitcoplaster 600 should be mixed using slow speed mixer. Use a paddle type mortar mixer for large jobs. Add the appropriate amount of water for the batch size and then add the dry product. Mix for a 3-4 minutes. Always fix the amount of water needed per bag and mixing time for the whole job to overcome color shades. The plasterer can best judge the required consistency of material that's needed depending on desired finish textures.

Mitcoplaster 600 can be manually applied in a single coat to the properly prepared substrate in a 15 - 25 mm thickness. While the coat in its plastic stage, the texture finish can be achieved by scrapping, flout or trowel with in 1 - 2 hours depending on surrounding weather conditions.

Coverage

1.6 kg / m2 at a 1 mm thickness. Yield approximately 15.6 liters of mixed product.

Cleaning

Clean all tools with water immediately after use. Hardened materials can be removed using mechanical means.

Health & safety

Mitcoplaster 600 contains alkalis and protection should be provided to prevent contact with skin and eyes. Inhalation of dust must be avoided whilst mixing.

Storage and shelf life

Mitcoplaster 600 has a shelf life of 12 months when stored in original bags in a cool, dry environment.

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Mitco seal WC 200

Flexible acrylic cementations waterproof coating



Description

MITCO seal WC 200 is an elastomeric, two components acrylic modified cementitious coating. The product requires only on site mixing and may be trowel, brush or spray applied to provide a flexible, waterproof barrier

Typical Applications

MITCO seal WC 200 may be used where there is a requirement to waterproof structure internally or externally or where there is a requirement for a crack bridging typically in the following situations:

- Potable water containers, tanks and reservoirs.
- Waterproofing new and existing buildings.
- Levelling of concrete surfaces.
- Swimming pools and silos.
- As a backing to marble and granite to prevent water ingress and thus alleviate surface staining.
- Protection against brackish water.
- Coating seawater channels.
- Waterproofing planter boxes.
- Reinstatement of tie-bar holes.
- Protection of concrete against carbonation and chloride ion attack.

Relevant Standards

B.S 6920:	1990 Effect on water quality .

- B.S. 1881: 1983 Part 122.
- DIN 1048: Water penetration test

Advantages

- High bond strength to concrete and masonry.
- The coating provides effective anticarbonation cover equivalent to many times its thickness in concrete.
- Withstands high hydrostatic pressures.
- Can be applied to green or damp concrete.
- Excellent crack bridging capabilities even after long periods of immersion.
- Flexible & anti fungous coating.
- Non toxic suitable for contact with potable water.
- Breathable.
- Long pot life even at high temperatures.

Technical Data

Material density (fresh wet)	1800 Kg/m3
Pot life @ 25 °C	45 mins
Colours	grey, white
Minimum application temperature	5 C
Water pressure resistance	
Typical results @ 2mm	
Positive	7 bar
Negative	3 bar

Chemical & wear resistance

MITCO seal WC 200 resists diesel, petrol, calcium chloride and mild inorganic acids.

MITCO seal WC 200 also has excellent resistance to weathering and can accept normal foot traffic.

Surface preparation

Remove all grease, oil and any other contaminant from surface that could impair adhesion of MITCO seal WC 200 Spalled concrete should be repaired properly using a suitable repair mortar.

Mixing

The product cannot be mixed by hand.

Always add the powder slowly to the liquid while mixing with a paddle fitted on a slow speed, electric drill. Mixing should continue for a minimum of 5 minutes to achieve a homogenous consistency.

Application

Saturate concrete surface with clean water. Any free water on the surface should be removed immediately prior to applying of MITCO seal WC 200.

While the substrate is damp, apply the mixed product by stiff brush, roller or trowel checking that the first coat is at a minimum wet film thickness of 1 mm.

The product should always be finished in one direction. Apply the second coat at a minimum wet film thickness of 1mm and finish again in perpendicular direction after the first coat had become touch dry.

Note: Don't apply the product at temperature below 5 °C.

Mitco seal WC 200

Flexible acrylic cementations waterproof coating

Coverage

1.8 Kg / m2 at 1 mm thickness.

Equipment Cleaning

Tools and equipment should be cleaned immediately using water.

Packaging

MITCO seal WC 200 is supplied in 20 Kg two-part packs. Consisting of 15 Kg of powder and 5Kg of liquid.

Storage & Shelf life

The product has a shelf life of 12 months if stored in unopened containers in a cool environment.

Health & Safety

MITCO seal WC 200 contains alkalis and protection should be provided to prevent contact with skin and eyes. Inhalation of dust must be avoided while mixing Flammability

MITCO seal WC 200 is non flammable.

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Lotrene BB 2500 is an additive free grade mainly recommended for heavy duty film applications.

Properties

Lotrene BB 2500 has a suitable molecular structure to produce film with excellent mechanical properties, outstanding shrink properties and high stress cracking resistance.

Polymer Properties	Value	Unit	Test Method
Melt flow index	0.28-0.32	g/10 min.	ASTM D- 1238
Density @ 23 C	0.919-0.921	g/cm3	ASTM D- 1505
Crystalline Melting Point	113	С	ASTM D- 2117
Vicat Softening Point	95	С	ASTM D- 1525

Film Properties	Value	Unit	Test Method
Tensile Strength @Yield MD	12	Mpa	ASTM D- 882
TD	10		
Tensile Strength @Break MD	20	Мра	ASTM D-882
TD	20		
Elongation @ Break MD	650	%	ASTM D-882
TD	700		
Impact Strength	270	g	ASTM D-1709
Coefficient of friction	0.70		ASTM D-1894
Haze	25	%	ASTM D- 1003
Gloss @ 60	30	gu	ASTM D-2457
Clarity	12	%	ASTM D-1746

(The tensile properties are measured on a blown film of 250 Microns. Other properties are Measured on a film of 50 Microns.)

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures.

They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

Processing

Lotrene BB 2500 can be easily processed on all types of extruders designed for polyethylene.

The temperature of the polymer at the die output is suggested to be in the range of 190 - 230 °C.

The best and balanced properties of the blown film are achieved at blow up ratios between 2.5: 1 and 3.5 - 1.

To avoid blocking and shrinkage on the reel, temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature.

This product can be drawn down to gauges less than 50 Microns.

The recommended thickness range is from 50 Microns to 600 Microns.

Applications

- Heavy duty film for construction projects as vapor barrier for roofs and under slabs on grade.
- Shrink film for pallets shrink wrap.
- Heavy duty film for industrial packaging and for agricultural film.
- Blow molded containers.

Safety and Storage

Under normal conditions Lotrene BB 2500 does not present a toxic hazard through skin contact or inhalation. During processing contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrene BB 2500 is inflammable and combustible according to ISO R 1210.

LOTRENE BB 2500 LOW DENSITY POLYETHYLENE MEMBRANE

Lotrene BB 2500 should not be stored for prolonged period nor be exposed to direct sunlight and or heating during storage since this may adversely affect the properties of the product.

Mitco PVA Bonding Agent



General Information

Mitco PVA Bonding Agent is a polyvinyl acetate copolymer emulsion, which is generally used as a bonding agent for cement screeds, render, plaster and concrete.

Advantages

- Exceptional adhesive properties.
- Eliminates the need to hack a surface to provide a key for cement rendering or gypsum plasters.
- Easy to apply and use.
- Economical with numerous applications.

Properties:

- Composition: Polyvinyl acetate copolymer emulsion.
- Specific gravity: 1.06 at 22 °C
- Chloride Content: Nil to (BS 5075).
- Solid content: 50%.
- Viscosity: Approximately 23 poise at 22 °C. Compatibility with cements: can be used with all

types of cement.

Technical properties

Specific gravity: 0.9 at 20 °C. Over coating time: second coat can be applied immediately. Appearance: clear liquid. Minimum application temperature 2 °C.

Application procedure

Preparation

Mitco PVA Bonding Agent should be applied to a surface which is clean, sound and free from grease, oil and loose bound materials.

- Bonding new concrete to old Apply a sealing coat of PVA Bonding Agent diluted with 3 parts of clean water and allow to dry then apply a bonding coat of PVA Bonding Agent diluted with an equal volume of water and lay the new concrete while this coat is still tacky.
- 2. As a concrete surface sealing coat apply two coats of PVA Bonding Agent diluted with water at a ratio of 1 : 3 by volume respectively. Allow each coat to dry before proceeding.
- As an admixture in cement screeds topping mix one part cement, on part sand & 2 parts 3 – 6 mm granite plus 10 liters of Mitco PVA Bonding Agent lay the screed on to the tacky bonding coat, tamping well, then trowel to a smooth finish.

Curing

As with all freshly placed cementitious surface, good curing is essential.

Limitation

- Mitco PVA Bonding Agent is not suitable where conditions of rising damp are likely to occur.
- Topping screeds and renders should not be applied when the temperature is below 5 °C.

Coverage

Diluted 1:3:1 ltr per 32 square meters.Diluted 1:1:1 ltr per 20 square meters .As an admixture: 10 liters per 50 KG cement the
coverage figures will vary depending on the degree
of porosity & texture of the surface.

Storages

Store out of direct sunlight in dry conditions in the original packing. In such case shelf life is 12 months.





Stoneproof HSEP 300 is single component, silane siloxane which works by penetrating into substrate pores and reacting there with the moisture and water vapor present to form hydrophobic lining to the capillaries.

Advantages

- Allows concrete to breathe.
- Excellent water repellent effect.
- Non staining, no change in surface texture or appearance.
- Easy to use by brush or spray application.
- Prevent ingress of water borne salts.

Design criteria

Stoneproof HSEP 300 should be applied to the surface in two flood coats "wet – on – wet ", HSEP 300 must be applied at the given coverage rate of 6 m2 /liter per coat.

Technical properties

Specific gravity: 0.9 at 20 °C. Over coating time: second coat can be applied immediately. Appearance: clear liquid. Minimum application temperature 2 °C.

Application procedure

Surface preparation

The surface to be treated with Stoneproof HSEP 300 should be fully dry and free from mould oils curing membranes and greases.

Application

Stoneproof HSEP 300 can be applied direct from the container by either soft brushes or low-pressure spray. On vertical surfaces Stoneproof HSEP 300 should be flooded in a continuous coat ensuring the correct rate of application is achieved.

Coverage

Coverage of Stoneproof HSEP 300 is (4-6) m² / liter/ coat, depending on the porosity of the substrate.

Packaging

Stoneproof HSEP 300 is available in 20 liter and 200 liter drums.

Storage

Shelf life of Stoneproof HSEP 300 is at least 12 months when stored in unopened containers, out of direct sunlight.

Precautions

During usage of Stoneproof HSEP 300, care should be taken to avoid contact with eyes, mouth and skin.

Treat splashes to eyes and skin immediately. Use only in well ventilated areas. Reseal containers after use.

Fire

Stoneproof HSEP 300 is flammable. Do not expose to any sources of ignition.

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PRODUCT DESCRIPTION

MITCO COLOR HARDENER is ready to use, streak free, dry shake Color Hardener. It is formulated to be easily integrated into the surface of freshly placed concrete. Mitcocolor hardener densifies the surface of the slab, increases it's resistance to wear, freeze and thaw cycles, heavy traffic and enhances light reflecting while greatly improving it's appearance.

USES:

Mitcocolor hardener is regularly used as a floor hardening and coloring agent with flat work and imprinted (stamped) concrete to simulate the look of brick stone, tile, slate, etc. When used with the Stamping Mats, Release Agent and the high solids Acrylic Clear Sealer, an authentic architectural design is achieved on the concrete. Mitcocolor hardener is also used in industrial, commercial and residential applications for interior flat concrete floors where an abrasion resistance, colored or light reflecting floor is desired.

COMPOSITION:

Mitcocolor hardener is formulated with specially graded silica quartz aggregates, Portland cement, light fast synthetic and natural iron oxides, for fading and U/V light resistance and proprietary additives. MITCO COLOR HARDENERS meets or exceeds ASTM C-979 for color stability and ASTM C-4060 for abrasion resistance.

PACKAGING:

Mitcocolor hardener is packaged in 25 kgs. Plastic bag.

COVERAGE:

Each 25 Kg package of Mitcocolor hardener should cover not more than 7 square meters for normal applications. For Heavy Traffic, Malls and Parks, we recommend a maximum of 6 square meters and for Industrial floors no more than 5 square meters.

COLORS:

Mitcocolor hardener is available in more than 20 colors. Custom colors also available.

TECHNICAL DATA:

PERFORMANCE PROPERTIES:

Mitcocolor hardener colors are inert, lightfast, double milled, element resistant and free from any fillers or extenders.

PHYSICAL PROPERTIES:

Aggregate Size 0500- microns Aggregate Type Quartz, Silica Sand Cement Portland Type I Pigment Synthetic and Natural Iron Oxides

SHELF LIFE:

When Mitcocolor hardener is stored under normal conditions, in a dry/moisture free environment, a shelf life of at least twelve months from the date of purchase will be obtained.

SAMPLES:

Samples of Mitcocolor hardener should be obtained prior to approval from project owner. Note that concrete mix design, weather, texture mats, sealers, release agents, application technique and experience of applicator will affect the final result of the sample.



SUB GRADE PREPARATION:

The sub grade should be adequately compacted, well drained, uniformly graded and thoroughly dampened but free from standing water before concrete is poured.

CONCRETE MIX DESIGN:

The same plant should batch all concrete to avoid variations

All concrete should be placed at the same slump. A 3" to 4" slump is recommended, with 5" maximum. Normal air entrainment, water reducing agents and delay set admixtures may be used. In cold weather, a non-chloride accelerator should be used.

COLOR HARDENER APPLICATION:

After initial floating and all excess bleed water has dispersed, the first application of Mitcocolor hardener may be applied.

Broadcast first application using about 60% of recommended amount and let it remain on the surface for several minutes or until the Mitco hardener has wetted out sufficiently, then float with a wood or magnesium float.

Immediately broadcast the second application with remaining of Mitcocolor hardener and let it wet out for several minutes then trowel with a fresno or steel trowel, if needed in some areas may have to be touched up with more color.

CAUTION; DO NOT OVER TROWEL, DO NOT SPRINKLE OR FOG WATER ON CONCRETE. This will cause variation on color intensity.





PRODUCT DESCRIPTION

MITCORELEASE POWDER is a dry blend of hydrophobic powders, proprietary ingredients and coloring pigments designed for use in the concrete imprinting process to allow the clean release of texturing tools from the wet concrete surface. MITCORELEASE POWDER adds color variations and highlights to the textured surface, providing an attractive two-color antiqued look that very closely resembles natural materials such as cobblestone, brick, tile and slate.

RELEASE POWDER FEATURES AND BENEFITS

• Allows a clean bond break between fresh concrete and stamping mats.

• Ads color variation-antiquing affect for stamped surfaces.

• Easy removal process allows for controlled removal to achieve desired shading effect.

LIMITATIONS

The final color of the concrete is affected by many factors. It may be a function of the basic concrete mix ingredients (fine aggregate, coarse aggregate, water and cement), the weather, finishing techniques, experience of the applicators, and coloring method used (color hardener or integral color).

Important factors affecting the color on concrete are the actual cement content and the water/cement ratio. The higher the cement content on the mix, the more integral color will be required (always follow manufacturer's specifications regarding the amount of pigment to cement ratio) this ratio is measured in pigment x bags of cement x cubic meter of concrete.

FACTORS AFFECTING FINAL COLOR:

• Rapid moisture loss from within the concrete due to absorption from dry sub-grade or formwork.

- Rapid moisture loss at the concrete surface
- caused by wind, elevated temperatures or sunlight. • Over working the concrete surface. Surface water should never be worked into the concrete. Always wait until bleed water has dried or evaporated before finishing concrete.
- Poor workmanship: Workers should be experienced in finishing, texturing, coloring stamp placement and removal, and curing and sealing decorative concrete.
- Troweling release powder into concrete.
- Variations in concrete from batch to batch, i.e. different water cements ratio, amount or type of cement in the mix, too lean mix, etc.

• Weather; follow ACI guidelines when pouring on cold or hot weather

DIRECTIONS FOR USE

After concrete is colored with Mitcocolor hardener or integral color and it reaches the proper set for imprinting, hand broadcast the release powder evenly over the surface to be stamped. Care should be taken not to trowel the release powder into the wet concrete; this will cause a permanent discoloration. After release powder has been applied, follow your regular procedure for stamping concrete.

TIPS:

• It is helpful to also coat the stamps with release powder before placing on wet concrete for the first time.

• Never drag anything on the surface or trowel over release powder. Discoloration will occur.

• If the stamps have been recently washed, they must be fully dry before starting to stamp. Any moisture still left on the mats will decrease the release powder efficiency resulting on concrete adhering to the stamp.



• Always cover walls, columns and plants with 50 microns plastic liner to avoid excessive clean up labor.

• Before pressure washing the concrete, broom off the release powder.

• The release powder may also be removed without pressure washing by using a liquid soap and brooms to remove excess.

• If too much release is removed you may antique the concrete with a liquid antiquing mix made with Mitco clear sealer + solvent + release powder sprayed onto the surface.

MAINTENANCE

It is highly recommended to develop and follow a routine maintenance schedule for all colored concrete so that it will maintain a top quality appearance. Every 24 to 60 months, colored concrete installations should be inspected, cleaned and resealed as required by volume and intensity of traffic. The need will depend on a number of factors including traffic conditions, geographical location and weather.

CAUTIONS

Use facemask or respirator. Do not allow getting into eyes. Keep out of the reach of children. Prolonged breathing will cause throat and lung irritation. Protect all adjacent areas.

SHELF LIFE

Indefinitely if protected from moisture.

COVERAGE

MITCORELEASE POWDER covers 79- square meters per kilogram. Coverage rates vary with application technique, wind conditions and texture of the concrete prior to application.

PACKAGING

In 15 kilograms Plastic bag.





PRODUCT DESCRIPTION

MITCO SEAL is a 100% acrylic solvent base clear concrete sealer, hardener and curing agent. It has been specifically formulated for sealing and protecting plain and colored concrete, masonry, precast concrete, natural stones and cementitious overlayments. Recommended for use over Stamped Concrete, Top Overlay, acid stained floors and any other concrete or masonry surface where a clear bright finish is desired.

MITCO-SEAL clear sealer is a non-styrenated acrylic sealer, non-yellowing and resistant to oil, gasoline, grease, acid, deicing salts, ultra violet rays, wet and dry abrasion, and most household chemicals. MITCO-SEAL contains unique resins and solvent formulations designed for maximum penetration into the concrete pores providing great adhesion to the surface. It enhances the color of stamped concrete, overlays and acid stained floors, and it adds life to your decorative concrete surface while creating a hard and long lasting protective shield over the concrete surface.

MITCO-SEAL is a ready to use product. It should not be diluted with xylene, toluene or any solvent. Do not thin. Use straight from the pail.

ADVANTAGES

- Water repellent.
- Non-yellowing.
- · Allows vapor passage.
- Dries water Clear.
- Penetrating.
- Fast drying.
- Enhances color of decorative concrete.
- Reduces alkali/efflorescence attack.
- Resistant to chemicals.
- Prolongs life of surface.
- Freeze thaw resistance exceeds 360 cycles.
- Maintains surface cleanliness.
- Ease of application no mixing.
- Prevents mildew and fungi.
- Improves weathering resistance of natural and manufactured brick products.

MITCO-SEAL is a ready to use product. It should not be diluted with xylene, toluene or any solvent. Do not thin. Use straight from the pail.

SURFACE PREPARATION:

MITCO-SEAL may be applied over masonry, cementitious overlays and plain or colored concrete. The surface must be sound, dry and free of oil, grease, curing compounds and any other foreign material that may inhibit the penetration of

PLAIN CONCRETE AND MASONRY SURFACES:

MITCO-SEAL sealer has to be able to reach the capillary canals to effectively bind itself to the concrete. The surface must be completely free of oil, grease, curing compounds, other coatings, water repellants and any other foreign material that may inhibit the sealer adhesion to it and it must be porous enough to allow sealer penetration. Roughen up non-porous surfaces or power troweled concrete with a mild acid-water solution (1 to 20) or by mechanical means (shot blaster, sand blasting, scarifying, etc.). When applying on interior all ignition sources must be eliminated, extinguish pilot lights, turn off heaters and adequate ventilation must be in place to eliminate accumulation of flammable gases. Applicators must wear proper protecting gloves and solvent approved respirators.

STAMPED CONCRETE:

Stamped concrete should be washed as soon as possible to remove the release powder, dirt or other contaminants. The surface must be completely dry before applying Mitco seal; surface moisture may cause delamination, whitening, cloudiness and unappealing results.



ACID STAINED FLOORS:

Acid etched or Acid Stained floors should be neutralized with a baking soda and water solution or a water-ammonia solution (1 cup of ammonia per 20 liters of water), after neutralizing rinse until floor is residue free and rinse water is clean. It is important that there is no residue on the surface and the concrete is completely dry before application.

APPLICATION:

MITCOSEAL can be applied by paint roller, or sprayer. Apply one to two thin coats. Allow to dry tack free between coats. One liter covers approximately 710- Square meter.

Dry time is approximately 2 hours at 21° C, but varies depending on temperature, wind and humidity.

Protect the application from rain for 24 hours. Allow 12 hours at 21° C before opening area to traffic.

LIMITATIONS:

• Substrate must be fully dry before application. On interior floors a moisture test should be performed before sealer application.

• Do not apply at temperatures below 7°C. Maintain temperatures above 7°C for a minimum of 24 hours after application.

• Do not apply if rain is expected within 24 hours of completed installation.

• Do not apply other coatings (epoxy, urethanes, etc.) over this material.

• Do not install concrete overlays, other toppings or surface treatments over this material.

• Do not install in enclosed structures without adequate ventilation.

• Test area for sealer acceptance and desired results. Always test before applying over decorative concrete floors.

TECHNICAL DATA AND SPECIFICATIONS:

Coverage Rate	Avg. 8
m2/liter	
VOC	
Color	Water clear
Solids	65 %
Shelf Life	1 year
Recoat Time	2 to 4
hours	
Application Temperature	7°C to
35°C	
Flash Point:	>110
Degrees	
CHEMICAL RESISTANCE:	
Reagent: Rating:	
Transmission Fluid	No
effect	
Gasoline	.Slight softening of film
Motor Oil	No effect
5% Sulfuric Acid	No effect
30% Hydrochloric Acid	No effect
Detergent	No effect
Brake Fluid	Softened film

CAUTIONS

Keep away from heat, sparks, and flame. VAPORS MAY CAUSE FLASH FIRE. Close container after each use. Use only with adequate ventilation. Do not breathe vapors, spray mist, or sanding dust. Do not get in eyes or on skin. Wash thoroughly after handling.

FIRST AID: If affected by inhalation of vapors or spray mist, remove to fresh air. If breathing difficulty persists or occurs later, consult a physician and have label information available. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and call a physician. For skin, wash thoroughly with soap and water. In case of ingestion, DO NOT induce vomiting. Get medical help immediately.

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