

MasterProtect[®] 1810

Phenol novolac epoxy amine cured filler

DESCRIPTION

MasterProtect 1810 is a fast setting, repair compound, ideal for minor concrete repair applications such as pin holes, blow holes & fine surface cracks.

MasterProtect 1810 is easily worked and can be applied by trowel, spatula or scraper. It cures to give high chemical & mechanical properties typical of Novolac systems. It is resistant to oils, greases, petroleum, salts, many acids and alkalis and most commonly met corrosive media. It does not shrink on curing, and is designed to be used when cured from below freezing point to 60°C. Its impact resistance, and mechanical strength is greater than that of concrete.

TYPICAL APPLICATIONS

- Fine filling resin for use in **MasterProtect 1800** series Novolac epoxy systems.
- Repairing surface defects such as blowholes and pin holes in concrete substrates.
- Dowel bars anchoring.

ADVANTAGES

- High strength
- Strong adhesion
- Impact resistant
- Chemical resistant
- Non shrink
- Fast setting
- Trowels to a smooth finish
- Easy to use

PACKAGING AND COLORS

MasterProtect 1810 is supplied in 1 L (1.475 kg) units and available in Cement Grey.

TYPICAL PROPERTIES*

Volume Solids	98%
VOC	15.65 g/L
Mixed density at 25°C	~1.47 g/cm ³
Pot life	
• 25°C	20 min
• 40°C	9 min
Recoat Interval	
• 25°C	60 - 210 min
• 40°C	30 - 50 min
Initial cure	24 h @ 25°C
Final cure	7 days @ 25°C
Bond to concrete:	>1.5 MPa
Compressive strength to ASTM C579 at 25°C	≥ 60 N/mm ² at 7 days
Abrasion resistance ASTM D4060 (CS17) at 7 days	70 mg

APPLICATION GUIDELINES

SURFACE PREPARATION

Surfaces must be clean and dry. Use suitable methods to remove dirt, dust, oil and all other forms of contamination that could interfere with the adhesion of the primer.

CONCRETE

Concrete must be cured for 28 days. Mechanically surface profiling is the method of surface preparation. Mechanically profile the surface to CSP3 as described by the International Concrete Repair Institute. Voids and pinholes must be repaired.

Generally, it is preferred to prime the concrete with **MasterProtect P 1801** before any scrape coat applications.

MIXING

The 1 L (1.475 kg) pack has been designed to be readily mixed by margin trowel at the ratio of 4.2 parts base to 1 part hardener. Mix the material for 1 minute and until it is free of streaks.

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PLACING / APPLICATION

Scrape or trowel **MasterProtect 1810** to the required level. **MasterProtect 1810** has a high exotherm and so where deep recesses are to be filled, it may be necessary to use **MasterProtect 1840**.

CHEMICAL RESISTANCE

MasterProtect 1810 has excellent resistance to the following: Most aqueous systems, sewage, urine, fresh water, sea water, diluted and concentrated alkalis, diluted acids, sulphur gases, mineral, vegetable and solvents and etc.

WORKING TEMPERATURE

MasterProtect 1810 will cure at temperatures as low as 0°C, although at low temperatures full cure takes longer than 7 days.

CLEANING

Clean with acetone immediately after use.

COVERAGE / YIELD

1 L (1.475 kg) is sufficient to cover 1 m² at 1 mm thickness.

STORAGE AND SHELF LIFE

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment. The shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advices consult Master Builders Solutions Technical Services Department.

HEALTH AND SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not leave mixed quantities beyond 300 grams or 200 ml to sit for prolonged time or exposed to high temperatures as this can cause exothermic reaction to occur and excessive smoking. If smoking of the product should occur, quickly fill it with sand and remove it to a well-ventilated area. Do not breathe in the smoke. Reseal containers after use. For further information, refer to material safety data sheet.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

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