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MASTERTOP™ 1120 T

High-build epoxy resin coating for concrete floors and wall

Description

MASTERTOP 1120 T is a two-component, solvented, epoxy resin coating specifically designed to provide continuous protection for substrates including concrete and mortar. It may be applied by brush, roller or airless spray. The product is available in a range of standard colours.

Uses

MASTERTOP 1120 T is recommended to coat the floors, where protection to floor from spillage of oil and other common chemicals is required.
MASTERTOP 1120 T is used to provide a hard wearing, easily cleaned and non – dusting surface.
MASTERTOP 1120 T is also used as a top coat for MASTERTOP 1240 PLUS floor finishes providing brighter, more attractive, durable sealed surface.

Application areas include:

- Engineering workshops
- Production and assembly lines
- Aircraft maintenance and assembly
- Warehousing
- Laboratories
- Chemical production and processing
- Battery and pump rooms

Advantages

- Good wear and abrasion resistance
- Good chemical resistance
- Easily cleaned, non dusting surface
- Pore free seamless film – Prevents ingress of harmful chemicals
- Available in several colour – Enables colour coding of floors

Typical properties

Mixed density	: 1.3 ± 0.05 kg/litre
Volume solids,	: 53 ± 3%
Mixing proportion (by weight)	: 100(Base) :37(Hardener)
Pot life	: 3 Hours at 25°C : 1 Hour at 40°C
Tack free	: 40 Minutes at 25°C : 20 Minutes at 40°C
Overcoating times	: 6 hours (minimum) : 24 hours (maximum)
Adhesion bond strength to concrete (ASTM D4541)	: > 1.5 MPa (concrete failure)
Abrasion resistance CS17 wheel (ASTM D4060, 1000 cycles)	< 30 mg
Max. service temperature	: 60°C
Surface spread of flame (BS 476 : Part 7)	: Class 1

Specification Clause

The high-build epoxy coating shall be MASTERTOP 1120 T, two-component, solvented formulation. The product shall offer excellent adhesion to concrete substrate, shall exceed 1.5 MPa adhesive bond when tested to ASTM D4541. The product shall offer good abrasion resistance, not exceeding 0.03 mg/cycle on CS17 wheel as per ASTM D4060 test method.

Directions for use

MASTERTOP 1120 T is a solvented system. During application, drying and curing, sufficient ventilation must be provided. Do not use where contamination of foodstuffs could occur during initial cure.

Temperature Requirements

- Substrate temperatures: 15°C – 35°C
- Material temperatures: 15°C – 30°C

Very low or very hot temperatures will make application more difficult and careful consideration should be given to storage of materials. In the cold weather conditions, pre-condition materials by keeping it in a heated room. In hot weather conditions, some form of air-conditioned storage is required. Pre-conditioned materials at 20-25°C will reduce the possibilities of flash/slow setting and other defects.

Surface preparation

MASTERTOP 1120 T must be applied to a clean, dry substrate free from laitance, dust, dirt, oil, grease and other contaminants. A clean surface will ensure adhesion between substrate and overlay.

The method of surface preparation will be dictated by the size of area to be treated, location and degree of contamination.

New construction

Floors to be coated or overlaid should be at least 28 days old.

The removal of laitance and contaminants is best achieved by mechanical means such as vacuum recovery shot blasting.

All contamination must be removed and a sound clean substrate exposed. Mechanical means of preparation are preferred followed by the removal of dust and other loose debris using an industrial vacuum.

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In areas of deeply penetrating contamination by oils, greases and fats, hot compressed air, treatment followed by impregnation with a low viscosity sealer / primer is the recommended treatment.

Uneven concrete should be levelled to produce a smooth flat surface. For heavy wear situations a suitable repair mortar or epoxy screed from the CONCRESIVE or MASTERTOP ranges should be used.

Priming (if required)
Apply a priming coat consisting of MASTERTOP 1120 T diluted with 10% (by weight) SOLVENT NO. 2, by brush or roller. The primer should be allowed to dry for a minimum of 4 hours and a maximum of 24 hours before over coating with MASTERTOP 1120 T.

Mixing
MASTERTOP 1120 T is supplied in two components; Part A and Part B. Thoroughly mix the two components using a slow speed drill with a suitable paddle, making sure to reach the bottom and sides of the can. Continue mixing for 1-2 minutes to produce a fully blended, uniform material. It is important to maintain constant mixing times throughout to ensure consistent colour and to avoid introducing excessive air into the system.

Smooth coating finish
Apply 2 coats of MASTERTOP 1120 T allowing a minimum of 4 hours between coats, and a maximum 24 hours. Apply the second coat at right angles to the first. To ensure specified performance, a minimum temperature of 15°C should be maintained during the curing period, by the use of additional heating if necessary. MASTERTOP 1120 T should be allowed 24 hours at this temperature prior to receiving light traffic. Full chemical cure is achieved after 7 days.

Anti-slip finish
To achieve a non-slip surface immediately broadcast MASTERTOP SRA No. 1 onto the wet base coat at the rate of 1-1.5 kg/m^2. Excess aggregate to be removed before application of top coat. Care must be taken when applying anti-slip system in large areas; ensuring that the anti-slip aggregate is scattered immediately on the wet coating.

Coverage
Actual consumption of MASTERTOP 1120 T depends on the surface absorption, texture, loss and wastage.
PRIMER COAT (10% diluted): 6 – 8 m^2/kg shall enable 40 – 50 microns DFT.

SMOOTH COATING: 4 m^2/kg/coat shall enable 100 microns dry film thickness per coat. Minimum two coats are recommended.

ANTI-SLIP COATING: 5 kg pack of MASTERTOP 1120 T is sufficient to treat approximately 6 - 8 m^2, with dry-shake of MASTERTOP SRA No. 1 @ 1 – 1.5 kg/ m^2. Total thickness shall be 0.3 – 0.5 mm.

Packaging
MASTERTOP 1120 T is supplied in 1kg. and 5kg. packs each consisting of two components.

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.

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 advice please consult BASF's Technical Services Department.

Safety precautions
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 reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note
All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

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