

MASTERSEAL™ SP120

(FORMERLY KNOWN AS CEILCOTE SP120 AND FEBPITCH EPOXY SP)

Pitch extended epoxy coating to protect marine and waste water handling structures

Description

MASTERSEAL SP120 is a two components, solvent free, pitch extended epoxy resin system to provide a high build coating that protects concrete and metal substrates from a wide range of aggressive chemicals.

Uses

Applications include;

- Sewage treatment tanks & pipelines
- Effluent treatment tanks, drains, pipes
- Splash zone of off-shore structures.
- Structures exposed to sulphate attack
- Below ground protection to concrete & metal structures

MASTERSEAL SP120 is not recommended for surfaces in contact with potable water and food stuffs.

Advantages

- Resists abrasion.
- Resistant to a broad spectrum of chemicals.
- High film build – durable.
- Solvent free.
- Adheres to damp surfaces
- Easy application – brush, roller or spray.

Typical Properties

Aspect	: Black viscous liquid
Volume Solids	: 100%
Mixed density	: 1.65 kg/litre
Mixed Viscosity	: 6000 cps at 25°C
Mixing Ratio, by weight	: 1:1
Pot life	: 60 Minutes at 25°C : 30 Minutes at 40°C
Touch dry	: 4 Hours at 25°C
Recoatable	: 12 Hours at 25°C
Final cure	: 5 Days at 30°C
Adhesion, ASTM D 4541	: >2.5 MPa (concrete failure)
Abrasion Resistance, (ASTM D4060, CS17 wheel)	: 17 mg / 1000 cycles
Slant shear bond strength	: > 10 MPa, ASTM C882
DFT, in two coats	: 300 microns

Standard compliance

- ASTM C881, Type III, Grade 2, Class C.

Specification Clause

The High build, pitch extended epoxy coating shall be MASTERSEAL SP120, a 100% solids, solvent free, tough abrasion resistant protective coating. The product shall exhibit excellent bond strength with the substrate at least exceeding 2.5 MPa, when tested as per ASTM D4541. The product shall be formulated to have high build thickness exceeding 150 microns per coat on average and shall be applied to achieve overall thickness of 300 microns in two coats. The product shall be formulated to resist exposure to accelerated weathering test as per ASTM D4587 and shall not exhibit any flaking or blistering.

Resistance to chemicals

- Sea water
- Distilled water
- Effluent
- Sewage
- Exhaust gases
- Dilute acids and alkalis

Resistance to aggressive environment

Exposure to accelerated weathering (ASTM D4587-91)	: No cracking No blistering No flaking
Exposure to salt spray (Hong Kong CE dept, model spec for prot coating)	: Resistant
Exposure to sewage (MTS international test method)	: Resistant
Exposure to marine environment -cyclic immersion in chloride solution	: Resistant

Directions for use

Surface preparation

It is most important to ensure that thorough surface preparation is undertaken prior to application of the MASTERSEAL SP120 coating.

Concrete

Ensure concrete is at least 28 days old and sound. Oil, grease, mould release agent, curing membrane, and such other contaminants must be removed by mild detergent and water, and by thoroughly scrubbing with a soft brush.

If the wall surface is damp or water is seeping out, it is necessary to stop the leakage before coating. For

advice on the appropriate method for the site situation, contact BASF.

It is important to note that the final finish obtained is entirely dependent on the surface finish of the substrate.

Even out all unevenness such as blowholes, pin holes and other surface defects with CONGRESIVE 2200 before application of coating.

Steel

Remove all previous surface treatments and corrosion products by sand/shot blasting to SA 2½ finish or to bright metal finish. Do not allow long time gap between the surface preparation and the coating to prevent re-oxidising of metal before application of MASTERSEAL SP120.

Mixing

MASTERSEAL SP120 is supplied in pre-proportioned kits for complete mixing. Properly stir each component separately before mixing together to ensure uniform consistency. Combine Hardener and Base component in a suitably sized container. Ensure to scrap the sides of the containers to ensure a complete reaction.

Mix properly for 3 minutes with a slow-speed drill and wing style mixing paddle at 300-400 rpm until a homogeneous colour is achieved. Keep the paddle below the surface to avoid entrapping air. Do not mix by hand.

Application

MASTERSEAL SP120 can be applied using short nap roller, shorthaired brushes or by airless spray. Apply in two coats, each at a W.F.T. of 150 microns, the second coat applied after the first coat has dried (4-6 hours at 30°C) and at right angles to it. Should the application of second coat be delayed, abrade the previous coat to give an adequate mechanical key and wipe with SOLVENT NO. 2 before the application.

Coverage

Each 6 kg pack yields 3.6 L on mixing and is sufficient to coat approximately 12 m² in 2 coats each of 150 microns (300µ in two coats) on a fair faced concrete surface.

Actual coverage depends on the numbers of coats, surface profile, loss and wastage.

Cleaning

Wash the tools and equipment immediately using a SOLVENT NO. 2 before the material harden. Hardened material can only be removed mechanically.

Packaging

MASTERSEAL SP120 is available in 6kg & 20kg packs.

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.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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