

MASTERSEAL™ 534

Low VOC containing, Epoxy tar coating for protecting concrete and metal surfaces

Description

MASTERSEAL 534 is a two components, solvented, coal tar epoxy resin system to provide a tough coating that protects concrete and metal substrates from a wide range of aggressive chemicals.

Uses

Applications include;

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

MASTERSEAL 534 is not recommended for surfaces in contact with potable water and food stuffs.

Advantages

- Easy application – brush, roller or spray.
- Resistant to a broad spectrum of chemicals.
- Excellent resistance to saline and soft water
- Self priming – no primer necessary
- Suitable for vertical and horizontal surfaces

Typical Properties

Aspect	: Black viscous liquid
Volume Solids	: 72%
Mixed density	: 1.21 kg/litre
VOC contents, by volume	: < 30 %
Mixing Ratio, by weight	: 17 : 87
Pot life	: 240 Minutes at 25°C : 120 Minutes at 40°C
Touch dry	: 3 Hours at 25°C
Recoatable	: 8 Hours at 25°C
Final cure	: 5 Days at 30°C
Adhesion, ASTM D 4541	: >1.5 MPa (concrete failure)
Abrasion Resistance, (ASTM D4060, CS17 wheel)	: < 40 mg / 1000 cycles
DFT, in two-three coats	: 100 - 150 microns

Specification Clause

The protective coating shall be two part, solvented epoxy coal tar coating with minimum volume solids of 72%. The product shall exhibit excellent bond strength with the substrate at least exceeding 1.5 MPa, when tested as per ASTM D4541. The formulation must be of low VOC containing with total VOC less than 30%

by volume. The total dry film thickness shall not be less than 100 microns. The product shall have good abrasion resistance and shall exhibit total wear loss of less than 40 mg/1000 cycles when tested as per ASTM D4060, using CS17 wheels.

Resistance to chemicals

- Sea water
- Distilled water
- Effluent
- Sewage
- Exhaust gases
- Dilute acids and alkalis
- Vegetable and mineral oils & fats

Directions for use

Surface preparation

It is most important to ensure that thorough surface preparation is undertaken prior to application of the MASTERSEAL 534 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 CONCRESEIVE 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 534.

Mixing

MASTERSEAL 534 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 534 can be applied using short nap roller, shorthaired brushes or by airless spray. Apply in two to three coats, each at a W.F.T. of 70 microns, the second coat applied after the first coat has dried (6-8 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 5 kg pack yields 4.1 L on mixing and is sufficient to coat approximately 30 m² per coat, each of 70 microns WFT 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 534 is available in 5 kg pack.

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.

TDS Ref. no. : Mslx534/01/0908

BASF India Limited**Construction Chemicals Division**

Plot No.37, Chandivali Farm Road, Chandivali ,Andheri(East)

Mumbai – 400072 India

Tel: +91 22 28580200, Fax: +91 22 28478381

e-mail: basfcc@vsnl.net

www.basf-cc.co.in

Page 2 of 2

