



## **Epoxy Primer-First coat:**

TT MS-11 is a primer for the concrete floors. It is designed to bond with the concrete, wood, and metals. It is applied as a thin layer at a pre-prepared concrete surface. The primer can be used  $0.08\text{kg/m}^2$  to  $0.15\text{ kg/m}^2$  ( $100\text{g/m}^2 = 10\text{ sq feet}$ ). TT MS-11 is a blend of TTMS-11A an epoxy resin and TTMS-11 B- a hardener. Its dry time depends on the film thickness, the surface preparation and the temperature and humidity. Thin film, dry surface, porous surface and open to air flow, it dries faster.

## **Why the Primer Application is Important for the Epoxy Coatings:**

Epoxy coatings do not bond quite well with the virgin surface or even to the used concrete surface. To increase the bond and the adhesion between the surface and the epoxy the primer is used.

TTMS-11 is designed to bond with the concrete surface strongly and it provides a strong bond with the mid or the top epoxy or polyurethane coats. In addition, the primers wet the surface quite well and it flow into the pores of the surface and block then blocks the transportation of vapors.

## **Surface Preparations:**

1. Let virgin concrete to cure.
2. Remove all dust and fine stones from the surface.
3. Ensure the surface is flat and all cracks are filled before the first coat.
4. The concrete surface should be dried, porous and clean.
5. We recommend applying HCl to remove any oil or Nero.
6. Sanding is suggested to make the floor open to take the primer.

## **How to Prepare TT MS-11:**

TT MS-11 is two component systems, TTMS-11A and TT MS-11 B. They are only mixed at the job when the surface is ready to apply.



### Preparation steps of TT MS-11:

Weigh 4.5 kg of TT MS-11A in clean pail. Weigh TT MS-11B of 1.5 Kg in a different Jar, beaker, or any other plastic or metal container and pour it TTMS-11A (The ratios of TT MS-11A and TTMS-11B are 3:1).

Start mixing immediately after pouring. Mix A&B for 2-5 minutes with a mechanical/electric mixture. Avoid any spill out from the pail. Carefully add the mixture and start slowly ramping up the mixing speed.

Why to weigh the A and B to the exact Ratios: The ratios of, TT MS-11A-resin and TTMS-11B hardener are very important. B is a hardener that reacts with the resin to forms a network and increase the hardness and curing rate. Any difference in the amount could yield significant impact on the quality, and life of the coatings.

### Table Presents the Properties of the MS-11:

| Test                              | Results                                   |
|-----------------------------------|---|
| Appearance                        | no lumps, . Balanced after mixing         |
| Density, g/cm <sup>3</sup>        | 1.08                                      |
| Flash Point, degree C             | 90 C and 104C                             |
| Viscosity, mPa.s (25C)            | 200-300                                   |
| Solids (%)                        | above 80                                  |
| Theoretical uses g/m <sup>2</sup> | 100                                       |
| Dry film thickness, microns       | 60-70 microns                             |
| Ratio by weight                   | 100:35:00                                 |
| Applied period h @25 C            | 1   |
| Adhesion -pull test, Mpa          | 2.5                                       |
| Drying time h                     | 18  |
| Coating method                    | spray, brush, roller                      |
| Coating intervals                 | 24 hrs.                                   |
| Supply spec                       | Part A 17kg barrel<br>Part B 6 kg /barrel |
| Storage conditions                | RT  |
| Shelf life                        | 1 year                                    |