Product Data Sheet

MAXOPOXY DTM 180

Product Characteristics

Description

MAXOPOXY DTM 180 is a two-component polyamide cured, low VOC, high volume solids, high build, surface tolerant epoxy paint. It is direct to metal coating which contains zinc phosphate pigments for additional corrosion protection.

Recommended Use

MAXOPOXY DTM 180 is recommended or can be used as a self-primed, surface tolerant paint system, or as an intermediate or as an epoxy top coat. The product can be used with wide range of top coats. The product is suitable to be used as direct to metal coating over blasted as well as non-blasted surfaces.

Service Temperature

Maximum, dry exposure : 120°C

Physical Constants

Shade

As per Ral /IS or Customised

Finish

Matt/Semi-Glossy

Volume Solids (%)

80 ± 2

Theoretical Spreading Rate

8 Sq.mt/litre @ 100 microns

Flash Point

Above 20°C

Surface Dry

Approx 30-45 mins @ 30°C

Hard Dry

Approx 3-4 hours @ 30°C

VOC Content

240 g/l

Shelf Life

1 year for Base and 1 year for Hardener from the date of production when stored in an appropriate storage condition at 25 – 30°C. The drums should be seal packed in its original condition.

Application Details

Mixing Ratio

Base : Hardener/Curing Agent
(4:1 By Volume)

Recommended Thinner

Maxothin Epoxy Thinner

Application Method and Thinning

Equipment	Airless Spray	Air Spray/ Pot Gun	Brush/Roller
Suggested Thinning (%)	10	15-20	5

Pot Life

2 Hours @ 30°C, at higher temperature pot life reduced significantly

Nozzle Orifice

0.017" – 0.021"

Nozzle Pressure

>200 Bar or 2800 Psi

Cleaning of tools

Use of Maxoclean thinner is recommended for cleaning of tools and equipment's

Film Thickness

Below is the recommended WFT and Thinning for required DFT

DFT Required (Microns)	Recommended Thinning	Recommended WFT (Microns)
80	15%	115
100	15%	145
120	10%	165
150	5%	200
200	2-3%	260

Normal DFT range of this product is from 80-200 microns/ 4-8 mils. Apart from edges it is advisable to avoid excessive film thickness.

Application conditions

- Temperature of the product must be above 10°C during application
- Surface temperature must be above 5°C during application and curing
- Relative humidity should be below 85% while application

Mixing Instruction

- As it is a two-component product, it is mandatory to stir the Part A or base with the help of a high-speed mechanical stirrer till there is no settlement or pigments settled at the bottom
- Once the base portion is mixed properly then only hardener needs to be added in the recommended ratio as mentioned in the mixing ratio
- Thinning should be done as per requirement and the mixture once again should be stirred with high-speed mechanical stirrer for 2 – 3 minutes

Mixing Table

Mixing Table is for reference

Volume Required	Base/Part A	Hardener/Part B
1 Litre	800 ml	200 ml
5 Litre	4 litre	1 litre
10 Litre	8 litre	2 litre
20 Litre	16 litre	4 litre

Filtration

Before application, it is advisable to filter the mixture with a filter cloth or sieve of at least 80 to 120 microns in order to avoid chalking of gun. It also helps in facilitating smooth application of the product.

Surface Preparation

New Steel Without Blasting

- Remove grease, oil, and other contaminants by using proper degreasing solvent/ other degreasing chemicals
- All surfaces to be coated should be clean, dry, and free from contamination
- All the loose rust should be removed with proper manual chipping and wire brushing to remove loose result.

New Steel

- The product is suitable for hand/ power tool cleaned surface minimum to ST 2 (ISO 8501-1:2007)
- Abrasive Blasting to min Sa 2.5 (ISO 8501-1) / SP 10 (SSPC)
- All the dust, blast media and loose material should be removed

Maintenance and Repair

- On spot abrasive blasting to min PSa2 (ISO 8501-2) / SP 6 (SSPC)
- Areas where blasting is not possible, to be cleaned or treated through hand or power tool to min ST 2
- Intact coating needs to be removed by water jetting to min WA 2 (ISO 8501-4)
- Acceptable flash degree of rust of maximum FR M (ISO 8501-4)
- All the dust, blast media and loose material should be removed

Drying and Over Coating

Coat Requirement

Preceding Coat

None or According to the specification

Subsequent Coat

None or According to the specification

Drying Time

Surface Temperature	15°C	30°C	45°C
Surface Dry	1.5 Hours	45 Minutes	25 Minutes
Hard Dry	8 Hours	4 Hours	3 Hours
Fully Cured	7 Days	7 Days	7 Days

Calculations shown above are mentioned considering 100-micron DFT. To achieve the desired drying time , it is important to maintain proper ventilation during the whole application process.

Over Coating

Product series	15°C		30°C		45°C	
	Min (Hours)	Max	Min (Hours)	Max	Min (Hours)	Max
Maxopoxy	6 Hours	Extended	4 Hours	Extended	3 Hours	Extended
Maxothane	6 Hours	Extended	6 Hours	Extended	4 Hours	Extended
Maxokyd	6 Hours	Extended	6 Hours	Extended	4 Hours	Extended

Overcoating time is determined considering the generic paint system. If other products are required, please consult local representative.

Over Coating Surface Preparation

- If the maximum overcoating time is exceeded, it is mandatory to roughen the surface in order to create proper profile for subsequent coat
- To achieve necessary adhesion the surface should be clean and dry
- All the loose dust should be removed before application

Clarification

Epoxy paint has natural tendency to chalk or fade when exposed to sunlight, moisture, or water. This does not affect the overall performance of the product. It also becomes more sensitive to mechanical damages and chemical exposure at elevated temperature.

Storage

Proper storage of the product is crucial to maintain their quality and performance over time. Below mentioned are some general guidelines for storing the material

- Store material in a controlled temperature environment, it should not be more than 30°C, or else it will affect the shelf life of the product
- Ensure good ventilation in the storage to prevent the buildup of fumes or volatile component
- It is mandatory to store material away from direct sunlight
- It is advisable to keep the material in sealed tight drums as air will enter in loose drums and will result in formation of skin or thickening of material
- Store the material away from potential ignition sources and follow proper fire safety regulations

Safety

This product is to be used for industrial use only and to be used or applied by professional applicators only

- Ensure proper ventilation in the area where you are applying the paint. This will help dissipate fumes and prevent inhalation of harmful vapours
- Wear appropriate personal protective equipment (PPE) such as gloves, safety goggles, and a respirator mask to protect your skin, eyes, and respiratory system from potential exposure to paint fumes and chemicals
- In case of accidental contact with the paint, rinse affected areas immediately with water and seek medical attention if necessary
- Do not eat, drink, or smoke while working with paint, as it can be hazardous if ingested and smoking can immediately cause hazardous fire, as it is solvent based paint
- Store paint drums out of reach of children and pets to prevent accidental exposure
- Dispose of any leftover paint or empty drums properly according to local regulations. Do not pour paint down the drain or in regular household trash.

If you have any specific questions or concerns, kindly refer to product's safety data sheet or contact the local representative for further guidance.

Note: Maxopoxy DTM 180 is for professional or industrial use only
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Disclaimer