

# METZ 33EN-SPRAYABLE

## MODIFIED EPOXY NOVOLAC



### DESCRIPTION:

Metz 33EN-Sprayable is a 100% solids sprayable modified epoxy novolac coating based on special resin and hardeners which impart outstanding chemical resistance.

Metz 33EN-SPRAYABLE can also be used as a trowellable coating for vertical and overhead surfaces. It can be applied at thicknesses up to 4mm per coat.

Metz 33EN-SPRAYABLE cures rapidly even at low ambient temperatures, thus minimising downtime.

### FEATURES AND BENEFITS:

- Outstanding Chemical Resistance  
Resistant to a wide range of concentrated acids and alkalis, solvents oils and fats. Resistant to spillages of high concentrations of sulphuric, hydrochloric and phosphoric acids. Refer Metz Chemical Resistance Chart.
- High Temperature Resistance  
Resistant to constant temperatures up to 120°C
- High bond strength to concrete without priming. Bonds to slightly damp concrete.
- Solventless  
100% solids formulation.
- Rapid Cure  
Fast setting, minimises downtime.
- Ease of Application  
Smooth paste consistency. Lightweight. Can be applied to horizontal, vertical and overhead surfaces. Easily finished by roller.
- Quality Accreditation  
The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

Note: Metz 33EN-Sprayable is an industrial product. There can be variations in thickness, surface finish etc. Material will change colour upon exposure to UV.

### RECOMMENDED:

As a coating to protect concrete and steel against chemical and mechanical attack in:

- Water treatment & sewerage plant infrastructure
- Fertiliser plants
- Food processing plants
- Secondary containment linings
- Steel mills
- Meat and poultry plants
- Acid plants
- Oil refineries

### NOT RECOMMENDED:

- For floor areas exposed to heavy traffic. Refer Metz 33EN-TG.
- For exposure to some organic acids and solvents. Refer Metz Chemical Resistance Chart and Metz 93PU series.
- For long term immersion in concentrated acids refer Metz 33EN-TG and VG.

### PHYSICAL PROPERTIES:

	(Typical Values)
Density:	0.85 - 0.90 g/cm <sup>3</sup>
Compressive Strength:	25 MPa
Adhesion to concrete (ASTM D7234):	>1.5MPa concrete failure
Coefficient of Thermal Expansion, per °C:	50 x 10 <sup>-6</sup>
Maximum Service Temperature:	120°C
Shrinkage:	0.08%

### COVERAGE:

 Theoretical quantities (allow for wastage)

2.7kgs per sq. metre per 3mm. of thickness.

Allow minimum 2 coats for corroded or rough concrete surfaces.

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## INSTRUCTIONS FOR USE

### 1. Temperature:

For optimum results, maintain a temperature of 5°C to 40°C on air and substrate during application and curing. If spraying, liquid hardener and powder components should be maintained at 15-20°C.

At temperatures below 5°C, the application becomes more difficult and curing is retarded.

At temperatures above 40°C, the working time decreases. Application in direct sunlight and rising surface temperatures may result in blistering of the coating due to expansion of entrapped air or moisture in the substrate.

### 2. Surface Preparation:

All surfaces must be clean and free from oil, grease and other contaminants which may inhibit bond. Remove all standing water. Abrasive blast or high-pressure water blast to remove laitance and provide a uniform, textured surface.

New Concrete - New concrete should have attained a minimum compressive strength of 20 MPa and be 28 days old. Surface must be free from laitance, form oils and curing compounds. Surface moisture content should be less than 10%.

Old Concrete - Concrete must be sound. Remove laitance, old paints, protective coatings and attacked or deteriorated concrete. Chemically clean surface to remove any contaminants. Surfaces should be as dry as possible (surfaces can be slightly damp, but not wet).

### 3. Mixing:

#### (i) Mixing Equipment

Mechanical mixing is recommended. A special resinous cements mixer or Festo mixer is suitable.

Smaller quantities can be mixed using a heavy duty drill with a suitable paddle. Consult METZ for details.

#### (ii) Mixing Proportions

	By Weight	By Volume
33EN-Sprayable Liquid	2	5 litres
33EN-Sprayable Hardener	1	3 litres
P8 Powder	2	6 kg (1 bag)

Notes: The liquid to hardener ratio must not be altered under any circumstances. Powder proportion can be adjusted by up to 10% to suit conditions.

#### (iii) Mixing Procedure

Remix liquids prior to use.

Mix liquid and hardener together first thoroughly for 1 minute. Add powder gradually with constant stirring. Mix for approx. 2 minutes. At the end of the mixing period, all material should be wetted out and uniform in colour and consistency. Material which has begun to set must be discarded. Do not add any solvent, additive or adulterant to any component, or to the mixed material.

#### iv) Pot Life

at 20°C	55 minutes
at 30°C	30 minutes

Note: Increase in temperature will decrease pot life, as will leaving mixed material in a large mass. Ensure all material is sprayed within 30 minutes at 20°C.

#### (v) Clean Up

Mixing and spray equipment, tools etc. can be cleaned with Metz Cleaner, xylene, acetone or M.E.K. prior to initial set of cement.

Note: Ensure you have the latest mixing instructions, refer [www.metz.net.au](http://www.metz.net.au) for most current data sheet version.

### 4. Installation:

Metz 33EN-Sprayable can be applied by suitable spray techniques. Contact Metz for details. Metz 33EN-Sprayable can be built up in layers of 3-4mm on vertical surfaces if necessary, allowing approx 30 minutes between coats (depending on temperature). On corroded or rough surfaces apply first coat, do not roll smooth, apply second coat when first coat has just stiffened, roll smooth top layer.

Finishing can be done with a roller to smooth and seal surface.

All finishing should be complete within 30 minutes at 20°C.

Metz 33EN-Sprayable can also be applied by trowel and finished by roller.

### 5. Setting/Curing:

	Setting time	Full Cure
at 20°C	8 hours	3 days
at 30°C	4 hours	2 days
at 40°C	3 hours	2 days

Metz 33EN-Sprayable can be subjected to water spray, condensation etc after 4 hours at 20°C. Do not expose to running water for minimum of 8 hours at 20°C. For harsh chemical or physical environments, cure a minimum of 72 hours at 20°C prior to exposure.

### 6. Storage

Shelf life is at least 12 months if kept in sealed containers and powder kept dry.

### 7. Safety Precautions

Liquid and Hardener

Use chemical goggles, PVC gloves and barrier cream.

Avoid contact with skin and eyes.

Powder

Avoid breathing dust. Ensure adequate ventilation.

For full safety precautions refer to Safety Data Sheets for all components.

**Always ensure you have the latest data sheet version, refer [www.metz.net.au](http://www.metz.net.au)**

- The customer must comply strictly with the instructions contained in this product data sheet. Metz is not responsible for any advice or variations to this data sheet which are not confirmed in writing.
- If the customer has a claim against Metz in respect of any product supplied to the customer by Metz whether due to a fault in the product or the negligence or breach of contract by Metz or for any other reason:
  - Metz shall not be liable for any loss or damage including consequential loss or damage or loss of profits arising thereby;
  - Metz may at its option replace the defective product free of charge to the customer or refund all payments made to it by the buyer in respect of the defective product; and the maximum liability of Metz shall be the cost of replacing the defective product.