

# METZ 33-SL

## SLIP RESISTANT EPOXY TOPPING



### DESCRIPTION:

Metz 33-SL is a 100% solids epoxy resin based flooring system which provides a textured, slip resistant surface. Metz 33-SL can be used in a wide variety of food processing areas, as it resists food acids, fats, oils and cleaning compounds. Use Metz 33-VG for coves and vertical surfaces. Metz 33-SL is applied to a nominal thickness of 3 mm. After broadcasting aggregate and application of a seal coat the final thickness is 4 - 5 mm.

### FEATURES AND BENEFITS:

- **Sealed, slip resistant surface**  
Provides safe, highly textured surface. R12 V4 rating according to AS 4586-2013 possible.
- **Chemical Resistance**  
Excellent resistance to a wide range of acids, alkalis, solvents, oils and fats. Refer Metz Chemical Resistance Chart.
- **Excellent Adhesion**  
Tenacious bond to correctly prepared concrete surfaces.
- **Solventless**  
100% solids system.
- **Cures under adverse conditions**  
Cures at temperatures down to 5°C and high relative humidity.
- **Ease of application**  
Flowable consistency enables quick, easy application.

### RECOMMENDED:

As a monolithic topping to protect concrete against chemical and mechanical attack and to provide slip resistant surface in:

- Dairies and Milk Products processing
- Food processing plants
- Commercial Kitchens
- Breweries and Soft Drink plants
- Meat and Poultry plants
- Bars and Serveries
- Confectionary plants
- Chemical plants
- Heavy Industrial Flooring

### NOT RECOMMENDED:

- For areas subject to significant spillages of strong solvents or concentrated organic or oxidising acids. Refer Metz 93PU-TG or Metz 33EN Series.
- Where smooth floor finish is required. Refer Metz 92, Metz 94 or Metz 44-SL.

### PHYSICAL PROPERTIES:

	(Typical Values)
Density:	1.9 - 2.0 g/cm <sup>3</sup>
Compressive Strength:	100 MPa
Adhesion to concrete (ASTM C1583):	>1.5MPa (concrete failure)
Flexural Strength	58 MPa
Coefficient of Thermal Expansion, per °C:	74 x 10 <sup>-6</sup>
Slip Resistance (AS4586-2013):	R12 V4 (using Broadcast Aggregate 18/40)
Complies with specification C.1.10a Fire Hazard Properties of the Building Code of Australia.	
Critical Radiant Flux:	>8.7kW/m <sup>2</sup>
Smoke Development Rate:	<220%.min

### COVERAGE: Theoretical quantities (allow for wastage)

<b>Metz Epoxy Primer*</b>	0.21 kgs per sq metre at 0.2mm thickness
<b>Metz 33-SL (Base Coat)</b>	5.9 kgs per sq metre at 3mm thickness
<b>Broadcast Aggregate</b>	6 kgs per sq metre
<b>Metz 33 Sealer</b>	0.42kgs per sq metre at 0.4mm thickness for standard 30/60 aggregate. Allow extra if coarser aggregate used.

\* Note: Primer may not be required on new (at least 28 days old), good quality internal concrete surfaces that have been track-blasted. Consult Metz for details.



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### INSTRUCTIONS FOR USE

#### 1. Temperature of Working Area

For optimum results, maintain a temperature of 10°C to 30°C on air and substrate and components during application and curing.

At temperatures below 10°C, the application becomes more difficult and curing is retarded.

At temperatures above 30°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, water and other contaminants which may inhibit bond. Remove all standing water. For best results surfaces should be dry. Concrete on grade should utilise a waterproof barrier beneath the slab.

##### (i) New Concrete

New concrete should have attained a compressive strength of 20 MPa minimum. Surface must be free from laitance, form oils and curing compounds. The surface should have a fine wood floated or lightly broomed finish and be 28 days old. Abrasive blast to remove laitance and provide a uniform, textured surface.

##### (ii) Old Concrete

Concrete must be sound. Remove laitance, old paints, protective coatings and attacked or deteriorated concrete.

Chemically clean surface to remove any contaminants.

Abrasive blast or high-pressure water blast to remove laitance and provide a uniform, textured surface.

All structural cracks should be repaired and all slopes reestablished with approved repair material.

All surfaces must be vacuumed to remove any loose deposits and contamination.

##### (iii) Edge Detail

Where ever an exposed edge of the material occurs, (e.g. in doorways) an anchoring groove at least 10mm deep should be cut in the substrate. Consult Metz for full details.

#### 3. Mixing

##### a) Mixing Equipment

A special resinous cements mixer is required. Smaller quantities can be mixed using a heavy duty, slow speed drill with a suitable paddle. Consult Metz for details.

##### b) Mixing Proportions

###### **Metz Epoxy Primer**

	By Weight	By Volume
Liquid	1.85	1.6
Hardener	1	1

###### **Metz 33-SL**

	By Weight	By Volume
Liquid L1	2	5.10 litres
33 Hardener	1	2.72 litres
Powder	7	20kg (1 bag)

###### **Metz 33 Sealer**

	By Weight	By Volume
Liquid L1	2	1.88 litres
33 Hardener	1	1

**Note: The liquid to hardener ratio must not be altered under any circumstances**

##### c) Mixing Procedure

Remix liquids prior to use.

###### **For Metz Epoxy Primer and Metz 33 Sealer:**

Mix liquid and hardener slowly and thoroughly for 1-2 minutes.

#### **For Metz 33-SL:**

Mix liquid and hardener together thoroughly for 1 - 2 minutes. Add powder gradually with constant stirring. Mix for 3 - 5 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.

##### d) Pot Life at 20°C

Metz Epoxy Primer	70 minutes
Metz 33-SL	30 minutes
Metz 33 Sealer	20 minutes

**Note:** Increase in temperature will decrease pot life, as will leaving mixed material in a large mass. Spread out material in a thin layer as soon as possible after mixing.

##### e) Clean Up

Mixing equipment, tools, etc., can be cleaned with Metz Cleaner, xylene, acetone or MEK 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

##### (i) Metz Epoxy Primer

Apply to concrete using short nap adhesive roller or nylon bristle brush. Metz 33-SL should be placed within 12 hours at 20°C, 6 hours at 30°C.

##### (ii) Metz 33-SL

Material should be placed immediately after mixing. Do not let the mixed material remain in mixing vessel. Spread Metz 33-SL with screed rake, screed or by hand to desired thickness (nominally 3mm). Use spiked roller to level and aid air removal. Finishing must be completed within 30 minutes of mixing at 20°C.

##### (iii) Broadcast & Metz 33 Sealer

Within 20 minutes (at 20°C) of applying METZ 33-SL, broadcast the aggregate into the 33-SL. Use broadcast aggregate 18/40 for maximum slip resistance. For a finer finish, broadcast aggregate 30/60 can be used. Apply to refusal (approximately 6 kgs per sq.m.). Spread evenly. Do not allow to clump. Next day remove excess aggregate by vacuuming, then apply 33 Sealer by short nap roller. Sealer application needs to be sufficient to seal all exposed aggregate but not more or reduced slip resistance may occur.

#### 5. Setting/Curing:

Initial set at 20°C:	12 hours
Full cure at 20°C:	7 days

Do not allow water, chemicals or traffic on the material surface for a minimum of 24 hours. For harsh chemical or physical environments, cure a minimum of 72 hours at 20°C prior to exposure.

#### 6. Storage

Store in original containers in cool dry place. Under these conditions minimum shelf life is 12 months.

#### 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 Material 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)

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