METZ 33-VG
TROWEL APPLIED EPOXY TOPPING

DESCRIPTION:

Metz 33-VG is a 100% solids trowel applied epoxy topping for vertical surfaces, applied at a thickness of 3 - 8 mm.

Metz 33-VG is used in conjunction with Metz 33-TG and can be used in a wide variety of food processing areas, as it resists food acids, fats, oils and cleaning compounds.

FEATURES AND BENEFITS:

- 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.
- Easily cleaned, slip resistant surface
- High strength
- Quality Accreditation
  The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

RECOMMENDED:

As a monolithic topping to protect concrete against chemical and mechanical attack.

- Dairies & milk products processing
- Breweries & soft drink plants
- Confectionery plants
- Food processing plants
- Meat & poultry plants
- Chemical plants

NOT RECOMMENDED:

- For areas subject to spillages of strong solvents or concentrated organic or oxidising acids. Refer Metz 93PU-VG or Metz 33EN-VG.
- For thickness above 8mm in one application.

PHYSICAL PROPERTIES: (Typical Values)

Density:	1.8 - 1.9 g/cm^3
Compressive Strength:	100 MPa
Adhesion to concrete (ASTM C1583)	>1.5 MPa (concrete failure)
Flexural Strength:	35 MPa
Coefficient of Thermal Expansion, per °C:	35 x 10^{-6}

COVERAGE: theoretical quantities (allow for wastage)

Metz Epoxy Primer	0.21kgs per sq metre at 0.2mm thickness
Metz 33-VG	5.5kgs per sq metre at 3mm thickness

APPLICATION TEMPERATURE:

For optimum results, maintain a temperature of 5°C to 30°C on air and substrate and components during mixing, application and curing At temperatures below 5°C the application becomes more difficult and curing is retarded. At temperature above 30°C the working time decreases.

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INSTRUCTIONS FOR USE

1. Temperature of Working Area

For optimum results, maintain a temperature of 5°C to 30°C on air and substrate and components during application and curing.

At temperatures below 5°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, dry 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 behind.

(i) New Concrete
New concrete should have attained a compressive strength of 20 MPa minimum and be at least 28 days old. Surface must be free from laitance, form oils and curing compounds. Abrasive blast or high-pressure water 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
Wherever a free edge occurs (e.g. at the top of a cove), consideration should be given to cutting an anchoring and sealing groove in the substrate. This groove should be at least 6mm deep. Consult Metz for full details.

3. Mixing

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

b) Mixing Proportions

	By Weight	By Volume
Metz Epoxy Primer (MEP)		
Liquid L1 Neutral	1.85	1.6
MEP Hardener	1	1
Metz 33-VG		
Liquid L1	2	2.20 litres
33 Hardener	1	1.17 litres
33-VG Powder	13	16kg (1 bag)

Note: The liquid to hardener ratios must not be altered under any circumstances.
The powder proportion can be altered by up to 10% to suit conditions
The addition of extra powder may result in a more porous surface.

c) Mixing Procedure
Remix liquids prior to use.
For Metz Epoxy Primer:
Mix liquid and hardener slowly and thoroughly for 1-2 minutes.
For Metz 33-VG:
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-VG	30 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 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-VG can be placed whilst the primer is still tacky. If the primer has hardened, consult Metz. Do not apply Metz 33-VG.

(ii) Metz 33-VG
Material should be placed immediately after mixing. Do not let the mixed material remain in mixing vessel. Spread Metz 33-VG with a trowel to desired thickness (nominally 3mm). Ensure surface is closed and compacted. Finishing must be completed within 30 minutes of mixing at 20°C.

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 Safety Data Sheets for all components.

Always ensure you have the latest data sheet version, refer www.metz.net.au

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