

# METZ 33EN

## EPOXY NOVOLAC MACHINERY GROUTS



### DESCRIPTION:

Metz 33EN Grouts are 100% solids epoxy novolac systems that are used for grouting machinery base plates, column bases, anchors etc. They can also be used as concrete repair materials.

Metz 33EN Machinery Grout is available in two grades - pouring grade and packing grade.

### FEATURES AND BENEFITS:

- **Outstanding Chemical Resistance**  
Resistant to a wide range of concentrated acids and alkalis, solvents, oils and fats. Resistant to spillages of concentrated sulphuric, hydrochloric and phosphoric acids. Refer Metz Chemical Resistance Chart.
- **Excellent Adhesion**  
Tenacious bond to concrete and metallic surfaces.
- **Solventless**  
100% solids system.
- **Cures under Adverse Conditions**  
Cures at temperatures down to 0°C and high relative humidity.
- **High Strength**  
Superior performance to cement-based grouts.
- **Quality Accreditation**  
The management system governing the development and manufacture of this product is proudly ISO9001:2015 certified.

### RECOMMENDED:

For grouting machinery base plates, column bases, anchors etc.

Metz 33EN Pouring Grout is a free-flowing, self levelling formulation containing fine fillers.

Metz 33EN Packing Grout is an aggregate filled formulation with a damp sand consistency.

### NOT RECOMMENDED:

- For exposure to some strong organic acids and solvents. Refer to Metz Chemical Resistance Chart or contact Metz for alternative recommendations.

### PHYSICAL PROPERTIES: (Typical Values)

	<i>33EN Pouring Grout</i>	<i>33EN Packing Grout</i>
Density g/cm <sup>3</sup>	1.9 - 2.1	2.0 - 2.2
Compressive Strength, MPa	100	100
Adhesion to concrete (ASTM C-478)	concrete failure	concrete failure
Flexural Strength, MPa	60	35
Coefficient of thermal expansion, per °C	75 x 10 <sup>-6</sup>	40 x 10 <sup>-6</sup>

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

Metz 33EN Pouring Grout 2 kg per sq. metre per mm. of thickness.

Metz 33EN Packing Grout 2.10 kg per sq. metre per mm. of thickness.



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### INSTRUCTIONS FOR USE

#### 1. Temperature of Working Area

For optimum results, maintain a temperature of 5–40°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 40°C, the working time decreases. Application in direct sunlight and rising surface temperatures may result in blistering 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.

#### 3. Mixing

##### i) *Mixing Equipment*

Mechanical mixing is recommended.

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

##### ii) *Mixing Proportions*

###### (a) Metz 33EN Pouring Grout

	By Weight	By Volume
33EN-SL Liquid	2	5.7 litres
33EN Hardener	1	3.1 litres
33-SL Powder	6	20kg (1 bag)

###### (b) Metz 33EN Packing Grout

	By Weight	By Volume
Liquid L2	2	2.1 litres
33EN Hardener	1	1.15 litres
P5 Powder	16	20 kg (1 bag)

Note: The liquid to hardener ratios must not be altered under any circumstances.

The powder proportion can be reduced by up to 5% to suit conditions.

##### iii) *Mixing Procedure*

Mix liquid and hardener together slowly and thoroughly. Add powder gradually with constant stirring. Mix for 2 to 3 minutes.

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 40 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.

##### v) *Clean Up*

Mixing 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

1) Pouring Grout - As Metz 33EN Pouring Grout is self-levelling, it requires forms to be constructed. Forms are usually wood, of the same type as used for concrete. They must be watertight and braced to withstand the pressure from the grout.

Apply the grout by pouring. Ensure a continuous flow of material.

2) Packing Grout - Metz 33EN Packing Grout has a damp sand consistency, and is installed by packing or ramming into place. Finish surface with steel trowel. If required a sealing coat can be applied. Apply a thin coating of the liquid and hardener (without any powder) by brush or roller. Remove any excess beyond what is needed to seal surface.

#### 5. Setting/Curing

Initial set, at 20°C: 6 hours

Full cure, at 20°C: 3 days

Do not allow water, chemicals or heavy loads on the material 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 sealed 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)**

- 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:
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  - 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.

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### METZ SPECIALTY MATERIALS PTY LTD

A.C.N. 140 636 639

15A Stanton Road, Seven Hills, NSW 2147  
Facsimile: (02) 9671 4292 Phone: (02) 9671 1311

6 University Place, Clayton North, VIC 3168  
Facsimile: (03) 9561 6944 Phone: (03) 9561 6144

Unit 16, 42 Smith Street, Capalaba QLD 4157  
Facsimile: (07) 3823 5552 Phone: (07) 3823 5555

### Distributor