

# MET – GROUT 70

## PUMPABLE HIGH STRENGTH NON – SHRINK CEMENTITIOUS GROUT

**MET – GROUT 70** is a combination of Portland cements, graded fillers and chemical additives. The low water demand ensures high early strength. The graded filler is designed to assist uniform mixing and produce a consistent grout.

**MET – GROUT 70** is used for general purpose, non – shrink cementitious grouting of gap thickness up to 100mm. Recommended applications at flowable consistency include base plates, bolt pockets and void filling. At pumpable or flowable consistency **MET – GROUT 70** is recommended for bedding load bearing components.

Advantages of **MET - GROUT 70**:

- Non – shrink
- High early strength
- Simply add correct quantity of water
- Can be used at flowable or trowellable consistency
- Chloride free
- Non – staining

### PROPERTIES

The following results are obtained at a water : powder ratio of 0.18 and temperature of 30°C ± 2°C

Compressive Strength	> 25N/mm <sup>2</sup> @ 1 day > 55N/mm <sup>2</sup> @ 7 days > 70N/mm <sup>2</sup> @ 28 days
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Expansion Time	15 – 120 minutes
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Expansion Characteristics	0.5% - 3.0%
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*\*Note that compressive strength was conducted by using 50mm cubes and kept under restraint for 24 hours and curing inside water*

### APPLICATION INSTRUCTIONS

#### PREPARATION

The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut

back to a sound base. Bolt holes and fixing pockets must be blown clean of any dirt or debris.

#### PRE - SOAKING

For a minimum of 2 hours prior to grouting, the area of cleaned foundation should be flooded with fresh water. Immediately before grouting take place, any free water should be removed with particular care being taken to blow out all bolt holes and pockets.

#### BASE PLATE

It is essential that this is clean and free from oil, grease or scale. Air pressure relief holes should be provided to allow venting of any isolated high spots.

#### FORMWORK

The formwork should be constructed to be leak – proof. This can be achieved by using foam rubber strip or silicone sealant beneath the constructed formwork and between joints.

#### UNRESTRAINED SURFACE AREA

This must be kept to a minimum. Generally, the gap width between the perimeter formwork and the plate edge should not exceed 150mm on the pouring side and 50mm on the opposite side. It is advisable where practical to have no gap at the flank sides.

#### MIXING

For best results a mechanical grout mixer should be used when quantities up to 50kg. Larger quantities will require a high shear vane mixer. Do not use a colloidal impeller mixer.

Sufficient mixing capacity and labour are required to ensure that grouting work would be carried out continuously. The use of grout holding tank with provision to gently agitate the grout may be required.

## METTEC SYSTEME SDN BHD

Lot 684 – A, Jalan 2C, Kampung Baru Subang,  
40150 Shah Alam, Selangor, MALAYSIA

Tel: +6011 3605 1024 | E – Mail: [enquiry@metticsysteme.com](mailto:enquiry@metticsysteme.com)

Website: [www.mettecsysteme.com](http://www.mettecsysteme.com)

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CEMENTITIOUS GROUT

### CONSISTENCY OF GROUT MIX

The quantity of clean water required to be added to a 25kg bag to achieve the desired consistency is given below;

Pumpable:	4.5 litres to 5.0 litres
Flowable:	4.0 litres to 4.5 litres

The selected water content should be accurately measured into the mixer. The total contents of the **MET - GROUT 70** bags should be slowly added and continuous mixing should take place for 5 minutes. This will ensure that the grout has a smooth even consistency.

### PLACING

Place the grout within 20 minutes of mixing to gain the full benefits of the expansion process.

**MET – GROUT 70** can be placed in the thickness up to 100mm in a single pour when used as an under plate grout. Any bolts pockets must be grouted prior to grouting between the substrate and the base plate.

Continuous grout flow is essential. Sufficient grout must be prepared before starting. The time taken to pour a batch must be regulated to the time to prepare the next one. It is advisable to pour the grout across the shortest distance of travel. The grout head must be maintained at all times so that a continuous grout front is achieved.

### CURING

On completion of the grouting operation, exposed areas should be thoroughly cured with curing compound, continuous application of water and/or wet hessian.

### CLEANING

**MET – GROUT 70** should be removed from tools and equipment with clean water immediately after use.

### LOW TEMPERATURE WORKING

When the air or contact surface temperature are 5°C or below on a falling thermometer, warm water (30°C to 40°C) is recommended to accelerate strength development.

### HIGH TEMPERATURE WORKING

Avoid grouting work when surrounding temperature >35°C. If grouting need to continue at high temperature, 35°C - 40°C, ice cool water should be used for mixing the grout prior to the placement.

### SUPPLY

**MET – GROUT 70** is supplied in 25kg bags.

#### Yield

The approximate yield per 25 kgs bag is;

Consistency	Pumpable	Flowable
Yield	13.5 – 15 litres	12.5 – 13 litres

### STORAGE

**MET – GROUT 70** has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and high humidity locations, the shelf life may be reduced.

### TECHNICAL SUPPORT

Mettec Systeme offers a comprehensive range of high performance, high quality of repair product for both new and existing concrete surfaces. In addition, the company offers a technical support package to specifiers, end – users and contractors, as well as on – site technical assistance.

### HEALTH AND SAFETY

**MET – GROUT 70** should be in contact with skin and eyes. Avoid inhaling of dust during mixing. Wear gloves, goggles and dust mask.

**MET – GROUT 70** is not a flammable material.

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