

## EstogROUT MP 90

### High Strength Shrinkage Compensated Grout

#### Description

**EstogROUT MP 90** non-shrink grout provides high flexural and compressive strength performance. It is a ready to use product in powder form and requires addition of water to produce as non-shrink grout performance.

**EstogROUT MP 90** is a blend of Portland cement, graded fillers and chemical additives that impart controlled expansion in the plastic state whilst minimizing water demand. The low water demand ensures high early strength. The graded filler is to assist uniform mixing and produce a consistent grout.

#### Uses

**EstogROUT MP 90** is suitable for a wide variety of precision application at any consistency from pourable to damp-pack. It is recommended for

- Crane rails
- Gas or steam turbines
- Generators
- Milling Machines
- Bedding for bridge bearing pad grouting

#### Advantages

- Excellent fatigue and impact resistance
- Early strength development even at pourable consistency
- Non Shrink (Shrinkage Compensated)
- Proven and predictable performance
- Excellent workability retention even at high ambient temperature
- High bond strength to steel and concrete
- Micro silica content enhances strength and durability
- No metallic content to cause staining

#### Standards Compliance

- ASTM C942
- ASTM C940

#### Physical Properties

Water Powder Ratio : 0.14	1 day (N/mm <sup>2</sup> )	7 days (N/mm <sup>2</sup> )	28 days (N/mm <sup>2</sup> )
Compressive Strength	> 30	> 60	> 90
Expansion Characteristics,	0.0 - 3.0 %		

#### Application Instructions

##### Surface Preparation

##### Foundation surface

The substrate surface must be structurally sound, free from oil, grease or any loosely adherent material. Bolt holes and fixing pockets must be blown clean of any dirt or debris. To assist in the formation of bond between substrate and grout, pre soaking of the substrate surface with water is advisable.

##### Base Plate

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

##### Formwork

All formwork used for grouting should be leak proof. This can be achieved by sealing the gap with a foam rubber strip or sealant.

##### Mixing & Yield

Mix 25kg of EstogROUT MP90 with 3.50 liters of water for 1 – 3 minutes until homogenous using mechanical hand mixer. The yield for one bag of EstogROUT MP90 is about 12.70 litres (approximately).

##### Application

**EstogROUT MP 90** can be placed in thickness up to 100mm in a single pour when used as an under plate grout. For thicker sections, it is necessary to fill out the **EstogROUT MP 90** using the well-graded silt free aggregate to minimize heat build up. Typically, a 10mm aggregate is recommended. Quantities of aggregate added to the **EstogROUT MP 90** should not exceed 1 part aggregate to 1 part of **EstogROUT MP 90** by weight.

##### Curing

On completion of the grouting operation, all exposed areas, which are not to be cut back, should be thoroughly cured. Apply curing membrane such as Estocure R90, curing compound with 90% curing efficiency.

210906

## Packing & Size

EstogROUT MP 90	25 kg bag
-----------------	-----------

## Technical Support

Denka 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.

## Storage

**EstogROUT MP 90** should be stored on pallets in dry conditions. Under these conditions, the product will have a shelf life of 12 months.

Shelf life may reduce if stored in extreme heat locations.

## Precaution

**EstogROUT MP 90** is alkaline base; it should not be in contact with skin and eyes. Avoid inhalation of dust during mixing. Wear gloves, goggles and dust mask.

## Additional Information

**Denka Construction Solutions Malaysia Sdn Bhd** offers a wide range of complementary products, which includes grouts, waterproofing products, waterstops, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.



**Denka Construction Solutions Malaysia Sdn Bhd**  
(591858-U)  
No. 18, Jalan Utas 15/7, Seksyen 15,  
40200 Shah Alam, Selangor Darul Ehsan, Malaysia  
Tel: +603 5510 8810 Fax: +603 5518 8202  
[www.denka-cs.com](http://www.denka-cs.com)

## Limitation of Liability

*The information contained in this brochure provides general advice for potential customers for DENKA about the basic properties and characteristics of various DENKA products (hereafter known as "the Product Information"). DENKA makes no warranty or representation as to the entire accuracy or completeness of the Product Information in the brochure. Nothing in this brochure will be deemed to create any express or implied warranty of merchantability, fitness for a particular purpose or infringement of any intellectual property rights. Each user of the Product Information and DENKA products assumes their own responsibility to properly determine the manner and suitability of use of the Product Information and DENKA products in its own operations. The user should exercise proper care in considering the Material Safety Data Sheet, Product Information and any other technical information provided by DENKA including descriptions of the conditions of use, warnings and other cautionary instructions. DENKA reserves the right to change the Product Information from time to time at its discretion and without notice.*