

# EstogROUT Admix PE

## Plasticized Expanding Grout Admixture

### Description

**EstogROUT Admix PE** is an admixture for cementitious grouts where a very low water: cement ratio (between 0.40 and 0.45) and positive expansion are required.

It is a combination of plasticizing agent and a gas producing expansion medium. Sufficient restrained expansion is developed to ensure a high degree of interfacial contact.

If pre-packed cement-based grout is required instead of an admixture, use EstogROUT FP 70, MP 70 or MP 60, which only required additional of water.

### Uses

**EstogROUT Admix PE** is suitable for use to grout

- Ground Anchors
- Steel columns
- Bed grouting
- Duct grouting
- Infilling and jointing

### Advantages

- Excellent flow and good filling properties
- Good dimensional stability
- No bleeding
- High strength
- Shrinkage compensated
- No metallic iron content to corrode and cause staining or deterioration due to rust expansion in the grout.
- Gives high grout fluidity with very low water: cement ratio, for ease of placement or injection.

### Standards Compliance

- **ASTM C940**
- **ASTM C939**
- **BSEN 12390-3**

### Physical Properties

Colour	Brown powder
Chloride Content	Nil
Setting Time	Not affected
Time for Expansion	15mins - 2 hours at 30 °C
Expansion Characteristics, ASTM C940	0.5% – 4.0%

### Application Instructions

#### Dosage

It is recommended to use 225 g of EstogROUT Admix PE for a 50 kg cement.

Typical mixes	
Cement	OPC-Ordinary Portland Cement
Admixture	EstogROUT Admix PE
Dosage	225 g / 50 kg OPC
w/c ratio	0.44
Results	
Fluidity, second (ASTM C939)	12.0
Grout Expansion, %	2.3%
Compressive Strength, N/mm <sup>2</sup> BS EN 12390-3	
1 Day	19
7 Days	37
28 Days	48

*Note: It is advisable that trial mixes shall be carried out for a particular brand of cement. The results shown above are based on average QC data recorded.*

### Over Dosing

Drastic overdosing (more than 500g / 50kg OPC) of **EstogROUT Admix PE** increases expansion and may cause severe strength lost.

### Mixing

For best results a mechanically powered grout mixer must be used. For quantities up to 50kg a slow speed drill fitted with a high shear paddle is suitable. Larger quantities will require a high shear vane mixer. It is essential that machine mixing capacity and labour availability is adequate to enable the grouting operation to be carried out continuously. This may require the use of a holding tank with provision for gentle agitation to maintain fluidity.

The selected water content should be accurately measured into the mixer. Slowly add the cement (and sand if required) and **EstogROUT Admix PE**. Mix continuously for 5 minutes, making sure that a smooth even consistency is obtained.

### Application

After mixing, areas to be grouted should be prepared in the usual way to ensure, clean, sound, pre-wetted substrates. Place the grout within 20 minutes of mixing to gain the full benefit of the expansion process. Adopt usual placing or pumping procedures ensuring a continuous operation.

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## Curing

On completion of the grouting operation all exposed areas that are not to be cut back should be thoroughly cured. This should be done after the initial hardening of the grout by continuous application of water or by application of suitable curing membrane such as Estocure product range

## Packing & Size

<b>EstogROUT Admix PE</b>	20 kg bag
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## 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 Admix PE** should be stored on pallets in dry conditions. Under these conditions the product will have a shelf life of 12 months.

## Precaution

Gloves should be worn when mixing with **EstogROUT Admix PE**. Wet mix shall be wash with clean water when contacted with skin or eyes.

In the event of prolonged irritation, seek medical advice.

## Additional Information

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



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