

# ISOGROUT HD 2025

## Product Data Sheet

### Description:

ISO GROUT HD is a tropicalized version, heavy-duty, free flow, non-shrink cementitious based grout mortar. Applied in thicknesses between 15 mm and 100 mm.

ISO GROUT HD is formulated from sleet-ed cement, graded filler, and special chemical additives. These special additives impart controlled expansion in both plastic state and hardened state and at the same time minimize the water requirement. This low water demand ensures that the grout achieves high early strength and at the same time the controlled expansion compensates the initial shrinkage.

### Uses:

Precision of column base plates.  
 Prefabricated concrete installation.  
 Precision of industrial machines like energy turbines, generators, pumps, etc.  
 Concrete repairing.  
 Suitable for interior and exterior applications.  
 It can be used for pile head waterproofing and re-profiling.

### Advantages:

- Heavy duty. shrinkage compensated.
- Specially formulated for tropical conditions for high ambient temperature application.
- High adhesion strength.
- High compression strength.
- Resistant to freeze thaw cycle.
- Not affected by weather conditions.
- Resistant to water.
- No segregation and low bleeding.
- Just mixed with water , Easy and ready to apply.



### Technical Properties:

Appearance :	Grey Powder.
Density (mixed) :	2.3 g/cc
Water Powder ratio:	14%.
Measurement of grains:	2 mm.
Compressive strength (ASTM 579) 7 days:	50 N/mm2.
Compressive strength (ASTM 579) 28 days :	60 N/mm2.
Flexural strength (ASTM C 580) 28 days:	9.93 N/mm2.
Application temperature:	+5 C to + 45 C
Service temperature:	-5 C to + 500 C

As per test (ASTM-878-C)  
 This has an expansion value of about 0.05%.  
 Expansion occurs both in plastic and in an early hardened stage.

The expansion exhausts mainly during the first 12 hours of curing.

#### Bond to steel :

Plain bars : 7 days - 3N/mm2

Deformed bars : 7 days - 3N/mm2

## Application procedure:

### Surface preparation:

All the surfaces should be structurally sound, clean, free of dust, demolding agents, oil, paint, etc. Wash the area to be grouted with clean water 24 hours before application. The surface should be damp but free of standing water. The bolt holes and other areas should be free from water. Whenever form work or shuttering is used, make sure that all the joints are sealed properly to avoid grout loss.

### Mixing:

Add the powder to the water and mix using a heavy-duty slow speed drill (300-400rpm) fitted with a heavy-duty paddle. Mix for 2-3 minutes ensuring a lump-free and homogenous mix. For getting a free-flowing grout:

Add (14%) 3.5 liters of water for 25kg ISO GROUT HD bag.

Water used for mixing should ideally be below 25 C. Particularly in high ambient temperature conditions.

### Placing:

Grouting should be done continuously. Therefore make sure that sufficient grout is prepared before starting. While filling voids, grout should be poured from one side to avoid entrapment of air. The following measures are to be taken while placing the grout. Grouting operation should preferably be carried out in a shaded condition and avoid grouting at the hottest time of the day. Place the grout within 15 minutes of mixing to obtain the best results. Grouting should not be done in free & unrestrained areas as the gaseous expansion of the grout will lead to the development of cracks.

### Curing:

Cover the exposed areas immediately after placing for a minimum of 72 hours to protect it from direct sun and drying winds. Proper curing is essential in the exposed areas of the grout. The use of a curing compound or damp hessian /burlap is recommended.

### Cleaning:

Clean all tools and application equipment with clean water immediately after use. Hardened/cured material can only be removed mechanically.

### Packing:

Grey - 25kg .

### Storage:

Store undercover, out of direct sunlight and protect from extreme temperatures. In tropical climates, the product must be stored in an air-conditioned environment.

### Shelf life:

Shelf life is up to 12 months when stored as per recommendations.

### Health and Safety:

As with all construction chemical products, caution should be always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

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