

# Polyglaze®

## PZ MSG 50 NF

### NON FLOWABLE, THIXOTROPIC MEDIUM STRENGTH GROUT

#### PRODUCT DESCRIPTION

Polyglaze PZ MSG 50 NF is a polymer-modified, cementitious grout with mortar consistency designed for non-flowable applications. It delivers excellent early strength and thixotropic plasticity, making it ideal for precision grouting. Formulated using graded aggregates and selected polymers; it offers high workability, consistency, and performance. Supplied as a ready-to-use dry mix powder, it is especially suitable for structural repairs and rehabilitation work requiring medium strength non-shrink grout.

#### AREAS OF APPLICATION

- ◆ Honeycomb repair in concrete or plaster
- ◆ Repair of spalled or damaged concrete
- ◆ Grouting for micro piles on mivan walls
- ◆ Structural repairs in bridge and large structures

#### ADVANTAGES

- ◆ Easy to apply
- ◆ Non-bleeding and non-shrink grout
- ◆ Trowelable consistency
- ◆ Chloride-free; does not contribute to corrosion of base structure
- ◆ Rapid strength gain with complete surface contact
- ◆ Excellent working time at high ambient temperatures
- ◆ Economical : higher volumes of grout can be mixed and handled

#### APPLICATION METHODOLOGY

##### Surface Preparation

- ◆ Ensure the substrate is sound, rough and free from oil, dirt, paint or other contaminants
- ◆ As a precautionary measure, remove all residues with a wire brush or pressure washing
- ◆ Pre-wet the substrate well with clean water, particularly substrates with excessive absorption such as block walls
- ◆ Surfaces must be in saturated surface dry (SSD) with no standing water
- ◆ Ensure surface and ambient temperatures are between 5°C and 40°C

##### Mixing

- ◆ Add 13 - 15 % clean water by the material's weight for consistency
- ◆ Use only potable water for mixing
- ◆ Gradually add PZ MSG 50 NF to the measured quantity of water, stirring constantly with a mechanical mixing device
- ◆ Do not add extra water as this may lead to bleeding & segregation
- ◆ Do not add sand / cement to PZ MSG 50 NF as this may change its performance



##### Application

- ◆ Apply using a trowel or suitable traditional methods
- ◆ Compact properly into place, ensuring complete contact with the surface

##### Cleaning

- ◆ Clean the tools and equipment with water immediately after use. Delay in cleaning may require mechanical tools as the material hardens quickly

##### Curing

- ◆ Proper curing is essential for optimal strength
- ◆ Begin wet curing after grout has stiffened and form work is stripped
- ◆ Use wet hessian cloth or standard moist curing methods to maintain continuous curing for a minimum of 3 days
- ◆ Avoid using high-solids curing compounds, as they lead to surface cracking
- ◆ Inadequate curing may lead to cracks or shrinkage

#### PACKAGING

- ◆ Polyglaze PZ MSG 50 NF is available in 40 kg bags

#### STORAGE & SHELF LIFE

- ◆ Store in a dry place away from moisture and sunlight
- ◆ Best before 6 months from the manufacturing date in original sealed condition

#### PRECAUTIONS & LIMITATIONS

- ◆ Below 10°C, use warm water (30 - 40°C) to speed up strength
- ◆ Above 40°C, use cold water (under 20°C) for mixing grout
- ◆ Keep formwork for at least 36 hours if the temperature is under 10°C
- ◆ Follow normal working precautions similar to cement materials

# TECHNICAL DATA SHEET

## PHYSICAL PROPERTIES

Physical Appearance	Powder
Color	Grey
Bulk Density	1.25 - 1.35 g/cc
Water Mixing Ratio	13 - 15% by weight
Pot Life @ 27°C	Approx. 30 minutes
Application Temperature Range	5°C to 40°C
Setting Time	4 - 6 Hours
Recommended Thickness	Vertical / Ceiling application : 10 - 50 mm

## PERFORMANCE PROPERTIES

PROPERTIES	STANDARD	PZ MSG 50 NF
Mixed density (Paste)	-	2100 - 2150 Kg/m <sup>3</sup>
Bleeding	-	NIL
Flexural Strength @ 28 Days	ASTM C 348 : 2021	> 12 MPa
Tensile Strength @ 28 days	ASTM C 307 : 2018	> 5 MPa
Chloride Content	-	< 0.1
Compressive Strength		
1 Day		> 25 MPa
3 Days	ASTM C 109 : 2021	> 40 MPa
7 Days		> 45 MPa
28 Days		> 50 MPa

## YIELD

- ◆ Approx. 20 - 21 Ltr. for 40 kg bag

**Note :** ◆ Above values are under standard test conditions, variations may apply based on actual site or substrate conditions.  
 ◆ The above test results were achieved under Standard Laboratory Conditions at Temp:  $27 \pm 2^\circ \text{C}$  & Rh:  $65 \pm 5\%$ .  
 ◆ The mortar was tested at a consistency achieved by mixing 5.6 Ltr. of water with 40 kg of PZ MSG 50 NF.

## HEALTH & SAFETY

- ◆ Use a respiratory mask and protective gloves during application.
- ◆ Clean hands with soap and water after application.
- ◆ Avoid contact with skin / eyes. In case of unlikely contact, rinse eyes immediately with plenty of clean water and cleanse skin with soap and lukewarm water. Seek medical advice if irritation occurs / persists.
- ◆ In case of unlikely swallowing, seek medical attention immediately.

### Disclaimer:

The information in this TDS is for general guidance only. Specific advice for site conditions is available upon request. Details provided by the company are in good faith, when product is properly stored, handled, and applied under normal conditions. The site conditions, material compatibility, and workmanship are beyond our control, no warranties expressed or implied are given. The company accepts no liability for unsatisfactory results or consequential damages arising from product use.



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