

INDUGROUT-PH

HIGH-PERFORMANCE, HIGH STRENGTH, NON-SHRINK, NON-OXIDIZED, POST-HARDENING, CEMENTITIOUS GROUT

Product Description:

INDUGROUT-PH is ready-to-use high performance, high strength, non-oxidized, non-shrink, cementitious grout which only requires the addition of water to produce a non-shrink flowable mortar. INDUGROUT-PH contains a blend of selected Portland cements, special aggregates, modifiers and shrinkage compensating materials that work during both the plastic & post hardened states. INDUGROUT-PH is designed for application by pouring or pumping in thickness between 10 mm & 80 mm. INDUGROUT-PH does not release any gases during its plastic or hardened states.

Primary Uses:

INDUGROUT-PH is typically used for:

- Grouting anchor bolts.
- Grouting bridge bearings.
- Grouting of structural elements such as precast wall, beams, columns etc.
- Grouting anchor bolts, crane rails and milling machines.
- Structural concrete repairs.
- Grouting of generators & turbines.
- Heavy stanchion bases and base plates of reciprocating machines.

Advantages:

- Easy to mix and apply.
- Designed for hot weather applications.
- Non-oxidized, non-shrink.
- Does not contain gas releasing agents.

- Resistant to water and water-borne salts.
- Adjustable consistency.
- High mechanical properties.
- Low permeability extends durability & service life.
- High early and ultimate strengths.
- Chloride-free, nitrate-free & non-toxic.
- Excellent bond to concrete and steel.
- Excellent heat resistance.
- Can be applied in a single layer at a thickness of up to 80 mm.

Standards:

INDUGROUT-PH is formulated to comply with all requirements of ASTM-C-1107: "Packaged Dry, Hydraulic-Cement Grout (Non-shrink)" Grade B.

Technical Properties:

Appearance consistency	: Free flow grey Powder	
	Flowable	Fluid
Mixing water (litres)	: 3.75	4.00
Yield/bag (litres)	: 12.5	13
Mixture density (kg/l) at +20 °C	: 2.3	2.2
Setting times (Influenced by ambient Temp.)	: Initial 3-4 hrs.	Final 5-6 hrs.
Flow (Flowable consistency)	: CRD C-cone	
Chloride content (%)	: 19-25 sec.	
	: Nil	

Expansive Behavior	: No expansion during the plastic state. Expansion occurs in the hardened state only.	
Expansion at 28 days	: +0.01%	
Compressive Strength(N/mm ²)	: Flowable	Fluid
at 24 hrs.	: 25	30
at 3 days	: 37	55
at 7 days	: 50	65
at 28 days	: 83	80
Flexural Strength (N/mm ²)	: Flowable	Fluid
at 24 hours	: 10	8
at 3 days	: 11	9
at 28 days	: 14	13
Modulus of Elasticity	: >3300 MPa	
Coefficient of thermal Expansion	: 10x10 ⁻⁶ mm/mm/°C	

Application Guide Surface Preparation:

All surfaces must be sound, clean and free from dust, grease, oil, curing compounds, mould release agents or other adhesion inhibiting materials. Remove all surface laitance and maintain a surface profile between CSP 1 & CSP 5 described by the International Concrete Repair Institute (ICRI).

Thoroughly saturate all mineral substrate and remove standing/surface water prior to application of INDUGROUT-PH.

Steel reinforcement must be grit blasted to SA 2½ (White clean metal) and immediately primed with INDUBOND-VK4032-ACI or INDUCRET-BIS-0/2 before new rust/scale is formed. Please refer to relevant technical data sheets.

Shuttering:

Always use water tight and smooth surfaced shuttering. Use rubber strips or appropriate sealant between the formwork and the host

concrete. Maintain a maximum unrestrained (exposed) gap between the formwork and base plate edge of:
25 mm on inspection sides.
70 mm on pouring side.

Mixing:

Place the exact amount of water in a clean vessel and gradually add the contents of the bag while mixing with an electric drill (maximum 450 rpm) attached with the appropriate mixing paddle. Continue mixing until a homogenous, lump-free consistency is achieved. An appropriate grout mixer is recommended for large-volume grout pours. DO NOT mix more than what you can consume within 45 minutes at +25 °C. DO NOT RE-TEMPER grout to restore workability. Grouts that have lost workability must not be used.

Placement:

Continuously pour - from the pouring side - the mixed materials onto the prepared substrate. Avoiding air pocket entrapment & allow air to escape. If base plate grouting is carrying out, ensure adequate head pressure is maintained throughout the pouring process. Voids should be removed by rodding or strapping.

Curing:

INDUGROUT-PH is a cementitious grout. ACI recommendations should be followed during mixing, placement and curing. After placement, the grout must be properly cured for at least 3 days. REMICURE, curing compounds from the AQUAFIN range can be used. Protect freshly placed grout from direct sunlight and/or extreme temperatures.

Cleaning:

Clean all tools & equipment with water immediately after finishing grouting works. Cured/hardened grout can only be removed mechanically.



Estimating & Supply Packaging:

INDUGROUT-PH is available in 25 kg bags.

Yield:

12.5 liters/bag in the flowable state.

13.0 liters/bag in the fluid state.

Storage & Shelf-life:

12 months when stored in original, unopened bags and elevated from the floor in a covered & well-ventilated storage area away from extreme temperatures, and any source of moisture.

Health and Safety:

- INDUGROUT-PH is non-toxic & non-hazardous during handling, storage & use.
- Do not dispose directly into water or onto soil. Expired or out of pot-life material should be disposed of in accordance with local environmental regulations.
- Splashes on skin can be washed with soap and water.
- For more details about any safety requirement, please refer to valid MSDS.

