TECHNICAL DATA SHEET

HYDROBLOC
BUILT ON PERFORMANCE

HYDROBLOC-GPRG

General Purpose, Non-Shrink Repair, Cementitious Grout

Product Description:

HYDROBLOC-GPRG is a ready-to-use, general-purpose, high strength, non-shrink cementitious grout, requiring only the addition of water to produce flowable or fluid consistency. It consists of selected Portland cement, graded aggregates, modifiers, and shrinkage-compensating agents that ensure controlled expansion in both plastic and hardened phases.

Key Features & Benefits:

- Single component; simply add water
- Non-shrinking in both plastic and
- post-hardening states
- High early and ultimate compressive strengths
- Low permeability and excellent bond to steel and concrete
- Adjustable fluidity for pouring or pumping
- Free from chlorides and nitrates; non-toxic
- Heat-resistant and water/ salt resistant properties

Areas Of Application:

- Grouting structural baseplates, anchor bolts, rails, and heavy machinery
- Structural repairs of columns, beams, precast units
- Bridge bearings, turbine & generator grouting
- Crane rails, stanchion bases, and machinery foundations

Surface Preparation:

- Substrate must be sound, clean, free of contaminants (dust, oils, curing agents).
- Remove laitance; achieve ICRI CSP-1 to CSP-5 profile.
- Pre-saturate substrate without leaving standing water
- Abrasive - blast reinforcement to Sa 2½ white-metal standard; immediately prime with appropriate epoxy bonding agent to prevent flash rust (e.g., HYDROBLOC Bond-X)

Mixing Instructions:

- Add measured water to a clean mixing vessel; gradually add grout while stirring with an electric drill (max 450 RPM).
- Mix until lump-free, homogeneous consistency.
- At +25 °C, do not mix more grout than can be used in 45 minutes.
- Do not retemper grout to extend workability.

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- Flowable for gravity pour or pumped application (10–80 mm thickness)
- Fluid for injection or fine sites.
- Use watertight, smooth shuttering sealed to substrate; maintain gap limits (e.g. ≤25 mm on inspection side; ≤70 mm on pouring side).

Application Guidelines:

Shuttering:

Always use watertight 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 and 70 mm on pouring side.

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.

Coverage/ Consumption:

Can be applied in a single layer at a thickness of up to 80 mm.
12.5 litres/bag in the flowable state
13.0 litres/bag in the fluid state

Curing & Protection:

HYDROBLOC-GPRG 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 S, curing compounds from the Hydrobloc range can be used. Protect freshly placed grout from direct sunlight and/or extreme temperatures.

Packaging:

HYDROBLOC-GPRG is available in 25 kg bags.

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.

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Health & Safety:

HYDROBLOC GPRG is chloride-free, nitrate-free, and non-toxic when used correctly.

Avoid inhalation of dust; use a mask when mixing.

Refer to Safety Data Sheet (SDS) for full handling instructions.

Technical Data:

Property	Flowable Consistency	Fluid Consistency
Mixing Water (L per 25 kg bag)	3.5L	3.75L
Yield per Bag	12.5L	13L
Density (kg/L)	2.3	2.2
Setting Time – Initial	3-4 hours	-
Setting Time – Final	5–6 hours	-
Expansion at the Plastic Stage	Nil	Nil
Expansion at 28 Days	≥ +0.01%	≥ +0.01%
Compressive Strength 24 hrs.	24 MPa	15 MPa
7 Days	47 MPa	55 MPa
28 Days	49 MPa	70 MPa
Flexural Strength 24 hrs.	10 MPa	8 MPa
3 Days	11MPa	9MPa
28 Days	14 MPa	13 MPa
Modulus of Elasticity	>3300 MPa	-
Thermal Expansion Coefficient	Approx. 10×10^{-6} mm/mm/°C	-

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