



HYDROBLOC
BUILT ON PERFORMANCE

HYDROBLOC-FC300

1

Fiber-Reinforced, non-Shrink, Shotcrete Repair Mortar
Fast-setting, high-strength, cement-based dry-process

Product Description:

HYDROBLOC-FC300 is a single-component, ready-to-use, fast-setting structural shotcrete repair mortar engineered for demanding repair and overlay applications. It incorporates selected hydraulic binders, silica fume, shrinkage-compensating additives, and alkali-resistant polypropylene fibers. Designed for high build thicknesses (up to ~200 mm per pass) with reduced rebound, controlled expansion, excellent adhesion to concrete and steel, and enhanced durability.

Key Features & Benefits:

- Fast early strength development for quick turnaround
- High-strength and durable, low-permeability mortar
- Fiber-reinforced to minimize cracking even at large thicknesses
- Chloride- and nitrate-free—corrosion safe
- High-build application possible without sag or slump
- Reduced rebound during wet-mix shotcrete application
- Excellent abrasion and impact resistance
- Ideal adhesion to concrete and structural steel

Application Areas:

- Repair of bridge decks, quay walls, piers, tunnels, and tanks
- Thick-section concrete repairs (>50 mm per pass)
- Stabilization of rock and underground infrastructure
- Swimming pool and water retaining structure repair
- Offshore, marine, and heavy industrial structures
- Any structural overlay requiring rapid strength gain

Surface Preparation:

- Surfaces must be clean, solid, and free of dust, grease, curing agents, or debris.
- Remove all laitance; roughen smooth steel or concrete surfaces
- Pre-wet substrate to saturated surface-dry (SSD) before application

Mixing Instructions:

- Use a dry-process shotcrete machine* or drum mixer
- Follow manufacturer's guidelines precisely—no water or admixture beyond specification
- Mix until uniform, lump-free consistency is achieved

HEAD OFFICE: Plot # 70/5, Timber Pond, East Wharf Road, Keamari-Karachi 75620
TELEPHONE: +92 300 2288788
EMAIL: salesteamtwo@patsapakistan.com
WEBSITE: www.patsapakistan.com

PATSA
Protective Solution

TECHNICAL DATA SHEET





HYDROBLOC-FC300

Application Guidelines:

- Apply in one or multiple passes depending on thickness
- Ensure continuous spraying for uniform lamination
- Use proper reinforcement in overlay or repair zones where specified
- Cure promptly after finishing to avoid plastic shrinkage and ensure strength gain

Storage & Shelf Life:

- Store in sealed, moisture-proof bags in a dry and shaded location
- Shelf life: *12 months* from production date, if properly stored

Health & Safety:

- Non-toxic and free from hazardous substances
- Avoid inhalation or contact with eyes/skin
- Use suitable PPE—gloves, goggles, and dust filters
- Rinse any spills with water.
- **Refer to SDS (Safety Data Sheet) for full precautions.**

Technical Data:

Property	Test Method / Range	Typical Value
Appearance	Visual	Grey, dry free-flow shotcrete powder
Compressive Strength	Internal / Standard (28 days)	≥ 60 MPa
Flexural Strength	Internal / Standard	≥ 10 MPa
Application Thickness (per pass)	-	Up to 200 mm (fresh)
Fiber Content	-	Alkali-resistant polypropylene
Expansion / Shrinkage	Internal / Compensating additive	Non-shrink, controlled expansion
Permeability	Waterproofing rating	Low permeability
Bond to Substrate	Internal adhesion tests	Excellent adhesion to concrete/steel
Rebound Rate shotcrete	Shotcrete performance metric	Reduced compared to standard shotcrete
Abrasion Resistance	Internal wear test	High abrasion resistance
Setting Time (Initial)	ASTM references	~3–4 hrs @ ambient
Setting Time (Final)	ASTM references	~5–6 hrs @ ambient