TECHNICAL DATA SHEET

HYDROBLOC
BUILT ON PERFORMANCE

DURAPLAST WR

High Performance Waterproof & Water-Repellent Cementitious Plaster

Product Description:

Hydrobloc Duraplast WR is a high-performance, polymer-modified, fibre-reinforced waterproof cementitious plaster designed for application thicknesses from 5 mm to 25 mm.
Powered by advanced Addiflex CSH crystalline waterproofing technology and silane hydrophobic additives, the system provides integral waterproofing, enhanced water repellency, low permeability and long-term durability for internal and external applications exposed to severe environmental conditions.
The product is specifically engineered for:

- Coastal and sea-facing environments
- High UV exposure
- Wet areas and water retaining structures
- Protective rendering of concrete and masonry substrates

Hydrobloc Duraplast WR provides a dense, durable and water-resistant matrix while maintaining vapor permeability.

Key Features & Benefits:

- Integral crystalline waterproofing technology
- Advanced silane-based water repellency
- Water-resistant and water-repellent matrix
- Fibre reinforced for shrinkage crack control
- Polymer modified for improved adhesion and durability
- Excellent UV, chloride and marine resistance
- Low permeability and dense matrix structure
- Suitable for 5–25 mm application thickness
- Suitable for internal and external applications
- Compatible with wet areas and swimming pool backing systems
- Vapor permeable protective plaster system

Application Areas:

- Coastal and sea-facing facades
- Retaining walls and basement rendering
- Swimming pool backing plaster behind tile systems
- Water tanks and wet process areas, bathrooms and utility zones
- Concrete and masonry protective rendering
- Balconies and high UV exposure facades
- Protective plaster for marine and chloride exposed structures

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Surface Preparation:

- Substrate must be structurally sound, clean and free from dust, oil, grease, curing compounds and loose particles.
- Remove laitance, weak concrete and contaminated surfaces mechanically.
- Repair honeycombs, major voids and defective concrete prior to application.
- Dense concrete substrates should be mechanically roughened before plaster application.
- Pre-wet absorbent substrates thoroughly to Saturated Surface Dry (SSD) condition prior to application.
- Avoid application over unstable, moving or contaminated substrates.

Mixing Instructions:

- Add 20–22% clean potable water by weight.
- Recommended water addition:
- Approx. 5.0 – 5.5 liters per 25 kg bag.
- Mix using a slow-speed electric mixer (400–600 rpm) for 3–5 minutes until a homogeneous, lump-free consistency is achieved.
- Allow material to stand for 2 minutes and remix briefly before application.
- Do not exceed recommended water addition as excess water may reduce strength, waterproofing performance and crack resistance.

Application Guidelines:

- Apply using steel trowel, plastering tools or suitable spray equipment.
- Compact firmly against the substrate to eliminate air voids and ensure proper bonding.
- Apply in uniform thickness throughout the surface.
- Recommended single layer application:
- 15–20 mm vertical surfaces
- Up to 25 mm horizontal surfaces or controlled vertical applications depending on substrate condition and workmanship.
- For thicker builds, apply in controlled passes with proper compaction.
- Finish with steel trowel, sponge float or wooden float depending on required texture.
- Avoid excessive over-trowelling.

Application Temperature

+5°C to +40°C

Avoid application:

- during rain
- under direct intense sunlight
- on frozen substrates
- during strong drying winds

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Coverage / Consumption:

Consumption is based on an approximate wet density of 1.9 kg/L.

Thickness	Consumption (kg/m²).
5 mm	9.5 – 10.0
10 mm	19 – 20
20 mm	38 – 40
25 mm	47 – 50

General Formula:

Consumption (kg/m²) = Thickness (mm) × 1.9
Actual consumption may vary depending on substrate profile, wastage and application technique.

Limitations:

- Hydrobloc Duraplast WR is a water-resistant and water-repellent protective plaster and is not intended to replace structural waterproofing membranes or damp-proof course systems.
- Continuous negative-side moisture pressure or rising damp conditions may result in moisture migration, efflorescence or paint deterioration over time.
- For permanently immersed structures or areas exposed to hydrostatic pressure, additional waterproofing systems may be required depending on project design conditions.
- As with all cementitious products, temporary efflorescence may occur under certain curing or moisture conditions.
- Do not apply over gypsum-based substrates without appropriate surface preparation and bonding systems.

Curing & Protection:

- Begin curing as soon as the surface has hardened sufficiently.
- Cure using clean water for a minimum of 3–5 days.
- Extended curing is recommended in hot, windy or coastal conditions.
- Protect freshly applied material from:
- rapid drying
- direct sunlight
- strong winds
- rain during initial curing period

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Proper curing is essential for:

- crystalline waterproofing development
- reduction of shrinkage cracking
- optimum strength development
- long-term waterproofing performance

Painting & Coating Recommendations:

- Allow plaster to cure and dry fully before application of paints or decorative coatings.
- Minimum waiting period before painting:
- 14 days minimum
- preferably 21–28 days depending on environmental conditions.
- Use breathable exterior-grade coatings such as:
- acrylic coatings
- siloxane coatings
- mineral-based breathable coatings.
- Avoid impermeable coatings in areas subject to rising damp or continuous negative-side moisture pressure.
- Light surface sanding or brushing is recommended prior to coating application to remove laitance or surface contamination.

Packaging & Coverage:

25 kg moisture-resistant bags

Storage & Shelf Life:

- Store in dry, cool conditions protected from moisture and direct sunlight.
- Shelf life is approximately 6 months in unopened original packaging.

Health & Safety:

Contains cement and may cause skin and eye irritation.

- Avoid inhalation of dust.
- Use appropriate PPE including gloves, dust mask and eye protection.
- In case of contact with eyes or skin, rinse immediately with plenty of clean water.
- Refer to the latest Material Safety Data Sheet (MSDS) for complete health and safety information.

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Technical Data:

Property	Typical Value
Dry Powder Density	~1.55 – 1.65 kg/L
Wet Density	~1.90 – 2.00 kg/L
Compressive Strength (28 Days)	≥ 25 MPa
Adhesion Strength	≥ 1.0 MPa
Water Absorption	Very Low
Water Repellency	Good to Very Good
Water Penetration Resistance	Excellent
Chloride Resistance	High
UV Resistance	Excellent
Recommended Thicknes	5 – 25 mm
Pot Life	Approx. 45 – 60 Minutes

Values shown are typical laboratory results under controlled conditions.

Disclaimer:

The information contained in this Technical Data Sheet is based on laboratory testing and practical experience under controlled conditions. Actual performance may vary depending on substrate condition, environmental factors, workmanship and application methodology. Users are advised to conduct suitability trials prior to full-scale application.

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