

Technical Data Sheet

HR MAXBOND

One-Component Polyurethane (PU) Sealant



Product Description

HR MaxBond is a premium one-component, moisture-curing polyurethane (PU) sealant designed for sealing joints, cracks, and construction gaps in concrete, masonry, metal, and other building materials. It cures on exposure to atmospheric moisture to form a durable, elastic, and waterproof seal, suitable for both interior and exterior applications.

Applications

- Expansion and construction joints in concrete structures
- Cracks and gaps in masonry and plaster
- Sealing joints in metal, aluminum, and steel structures
- Window frames, door frames, and façade joints
- General-purpose sealing in construction and industrial applications

Key Features & Benefits

- One-component, ready to use
- Moisture-curing polyurethane technology
- Excellent adhesion to most construction substrates
- High elasticity and movement accommodation
- Waterproof and weather-resistant
- Paintable after curing
- Long-lasting performance



Technical Properties

Property	Typical Value	Test Method
Base	Polyurethane (PU)	
Curing Mechanism	Moisture Curing	
Appearance	Smooth Paste	
Color	Grey / White / Black	
Density	~1.25 g/cm ³	
Skin Formation Time	30–60 minutes	
Curing Rate	~3 mm / 24 hours	
Shore A Hardness	30 ± 5	ASTM D2240



Elongation at Break	≥ 400%	ASTM D412
Tensile Strength	≥ 1.5 MPa	ASTM D412
Movement Capability	±25%	
Service Temperature	-40°C to +80°C	
Application Temperature	+5°C to +40°C	



Method of Application

Surface Preparation:

Surface must be clean, dry, smooth, and free from dust, oil, and loose particles
 Apply suitable primer (e.g., HR Emulsion Primer) and allow it to dry

Membrane Application

Unroll HR Membrane and align properly
 Heat the underside with a gas torch until bitumen melts
 Roll forward while applying uniform pressure for full bonding

Joint Sealing

Side laps: minimum 75 mm
 End laps: minimum 100 mm
 Heat overlaps properly to ensure complete sealing

Protection

Protect the membrane with screed, tiles, or protection board where required



Surface Preparation

Surface Preparation

Surfaces must be clean, dry, and free from dust, oil, grease, and loose particles
Remove old or damaged sealant completely

Application

Cut nozzle to required joint size
Apply HR MaxBond using a manual or pneumatic sealant gun
Fill joint evenly, avoiding air pockets

Finishing

Tool the sealant with a spatula or tooling tool within open time
Remove masking tape immediately after tooling

Curing

Allow sealant to cure fully before exposure to water or movement

Storage & Shelf Life

- Store in a cool, dry place away from moisture
- Keep packaging tightly sealed
- Shelf Life: 12 months in unopened original packaging

Health & Safety

- Use gloves during application
- Avoid contact with skin and eyes
- Ensure adequate ventilation during use
- Keep out of reach of children
- Refer to MSDS for detailed safety information

Limitations

- Not suitable for continuous immersion in water
- Do not apply on wet or contaminated surfaces
- Not recommended for contact with strong chemicals or solvents
- Test adhesion on sensitive substrates before full application

Disclaimer

The information provided in this Technical Data Sheet is based on laboratory testing and practical experience. Actual performance may vary depending on joint design, surface preparation, and application conditions. The manufacturer shall not be held responsible for improper use.

