

BP-ConRoof Hi-Build

Premium Quality Acrylic Water-proofing Coating

Description

BP-ConRoof Hi-Build is an elastomeric, single pack roofing compound. Based on special Acrylic Polymers, it is ideal for dry concrete or steel substrate where it forms a seamless, joint free, water and weather tight elastic membrane. It may be applied by brush, roller, squeegee or spray equipment depending on site conditions. To spray, select a nozzle size of at least 0.028 in.; first checking the spray equipment to ensure suitability.

Application Area

BP-ConRoof Hi-Build is suitable for many waterproofing applications, such as concrete or steel surface,

Advantages

- ✓ Resistant aging & UV radiation
- ✓ Accepts light foot traffic
- ✓ Withstands temperatures from -5°C to 100°C
- ✓ Ease of application
- ✓ Excellent elongation and flexibility.
- ✓ Non-toxic, Non-flammable & Non-hazardous
- ✓ Protection against carbonation and chlorides.
- ✓ Excellent adhesion & Easy to apply.

Typical Properties

Property	Test Method	Value
Component		Single
Mixed Form		Slurry
Solid Content	ASTM-D-1076	64 (+/-1)
Colour		Satin White & Grey, other colors by request
Viscosity, CPS	Brookfield	50,000-70,000
Density, Kg/l	ASTM-D-1475-161.	30 (+/0.05)
Application Temp, °C	In-House Test	+5 (minimum)
Curing Time, at 25°C	In-House Test	Approx. 8 hr. for touch dry
Service Temperature °C	In-House Test	Approx. -5 to 100
Tensile Strength, N/CM ²	ASTM-D-412	480
Elongation, at Break %	ASTM-D-412	440
Hardness, Shore A	ASTM-D-2240	68
Permeability	ASTM-E-398	Pass
Dry Peel Adhesion, lbs/sq. in.	ASTM-C-297	65
Flexibility	In-House Test	No cracking of film after 1000 hrs. accelerated weathering conditions and flexed 180 degrees
UV Resistance	ASTM-D-822	2000 hrs. No deterioration, no color fade
Coverage		For 1 mm thick dry film allow approx. 2kg/m ²

Design Criteria

Apply in separate coats, each at a right angle to the one before. Using a different colour for each coat helps ensure consistency of cover. The final coating thickness to be achieved depends on the requirements of the individual roof. A final dry film thickness between 0.5 and 1.5 mm may be built-up. Coverage varies depending on factors such as type and quality of substrates i.e. surface regularity and application method.

Surface Preparation

Surface preparation is a very vital issue and this influences the integrity of the waterproofing system. Hence, care must be exercised when the preparation is done. This is very important when re-roofing over an existing old roof.

Instructions should be followed strictly.

- ✓ All surfaces to be smooth, clean, dry and free from dust, rust and latience.
- ✓ Concrete and cementitious substrates must be well compacted with a wood float type finish, be at least 28 days old and well dried.
- ✓ Uncured concrete surface will have moisture trapped inside and will turn gaseous when temperature rises. This will lead to blistering and even delamination from the surface.
- ✓ Wooden or metal panels to be firmly fixed in position.
- ✓ Terrazo roof tiles: Clean and repair damaged joints. Ensure that the tiles are firmly grouted.
- ✓ Remove all loose material.
- ✓ Metal Roofs: Wire brush to remove moss, mildew, loose paint, and rust areas, then clean surfaces with a broom before priming.
- ✓ High pressure water brooming may be used, if necessary.

PRIMING

- **Old asphalt surfaces and bituminous roofing felt:** Cut felt blisters cross wise, dry and re-bond with suitable adhesive. Then prime cleaned surface with **BP-ConRoof Hi-Build** diluted with 20% water.
- **Concrete & Terrazzo tile roofs:** Prime with **BP-ConRoof Hi-Build** diluted with 20% water.
- **Metal Roofs:** Clean and remove all rust and apply a rust inhibitive primer. Follow this by applying metal primer to all corroded surfaces.
- **Other Roofs:** Should the roof be affected by algae or fungal growth, use a stiff bristled broom to remove this, before treating the cleaned surface with a suitable fungicide, and apply primer coat by diluting **BP-ConRoof Hi-Build** with 20% water.

Application Guidelines

1. Primer must be completely dry.
2. **BP-ConRoof Hi-Build** may be applied by soft brush, roller or spray gun
3. For spraying, **BP-ConRoof Hi-Build** may be slightly diluted with water. Too great a dilution may lead to sedimentation and blocking of spray gun.

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4. Apply two coats, each at the approximate rate of 0.8 kg/sq. m, to provide a total of about 1.5 to 2 kg/sq. m.
5. Where substantial movement is anticipated in the substructure, reinforce **BP-ConRoof Hi-Build** by incorporating a mesh-reinforcement as part of a "sandwich" membrane system. Lay this mesh in the wet first coat before application of subsequent coats. All detailing to pipes, up-stands, drains, projected line etc. should be mesh reinforced in this way.

Curing

Allow 24 hours between coats. A final curing time of 48 hours is adequate at normal working temperatures. Ensure curing is complete before laying thermal insulation boards, mechanical protection and other coverings. Low temperatures and high atmospheric humidity will slow down the curing rate, and vice versa.

Thermal Insulation

Joint extruded polystyrene panels with 100% closed cell structure may be placed over the **BP-ConRoof Hi-Build** membrane. Board thickness is determined by the required level of insulation. Boards to be laid staggered and allowance made for the thermal movement.

Mechanical Protection

Accessible roof: The installed **BP-ConRoof Hi-Build** can either be covered by in-situ concrete screed or by thermal insulation. Place a non woven polyester separation layer (Alyat or similar) over the acrylic waterproofing membrane followed by insulation boards. Then lay kraft paper or polythene sheets as separation layer over the insulation boards and place the topping screed of 4 cm to 5 cm thickness or suitable cement tiles.

Non-accessible roof: Place a nonwoven polyester separation layer over the acrylic waterproofing membrane followed by the insulation boards. Cover the insulation with another layer of non woven polyester separation layer and place 15/30 gauge washed gravel to a minimum depth of 5 cm. For thicker insulation boards, the gravel depth should be at least equal to that of board thickness.

Packaging

4 Kg, 10 Kg & 20 Kg set.

Coverage

Coverage varies depending on factors such as type and quality of substrates i.e. surface regularity and application method.

Storage & Shelf-life

12 months from date of manufacture when stored under warehouse conditions in original unopened packing. Extreme temperature / humidity may reduce shelf life.

Limitations

- ✓ Bitumen or asphalt roof surfaces to receive a coating of **BP-ConRoof Hi-Build** should be totally dry. Trapped moisture can lead to severe problems later.
- ✓ Never apply if rain is imminent.
- ✓ Application of thick coat at temperature below +5°C may result in incomplete film formation, with reduced elasticity and the possibility of crack forming.
- ✓ **BP-ConRoof Hi-Build** is resistant to light foot traffic. However, heavy traffic, high heel shoes, furniture, etc. will cause damage. In these cases the membrane should be protected by tiles, slabs, etc.

Cleaning

Clean all equipments and tools with water immediately after use. Hardened material can be removed mechanically.

Health and Safety

During use, avoid inhalation and contact with the skin or eyes. Gloves, goggles and suitable mask must be worn. Contact with skin, eyes, etc. must be avoided. If swallowed seek medical attention immediately. Regarded as non-hazardous for transportation. Do not reuse containers. To be disposed off as per local rules and regulations.

Quality & Care

Conpacmix (BD) Ltd acquired German technology for an updated production facility and set up a state of the art laboratory facility for conducting regular quality assessments on raw materials procured and finished products. Process from procurement of raw materials to finished products, are managed by qualified and experienced engineers, chemists and technicians.

Note: Field service where provided does not constitute supervisory responsibility. Suggestions made by **Conpacmix (BD) Ltd.** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **Conpacmix (BD) Ltd.**, are responsible for carrying out procedures appropriate to a specific application.

Manufacture:

