

# Aquathane R200

Polyurethane liquid membrane for waterproofing and protection



## Description

Single component high quality polyurethane coating that cures by reacting with the humidity in the atmosphere to form an elastic strong film with excellent adhesion to different substrates. Can be applied by brush, roller or airless spray machine.

The product is based on pure elastomeric hydrophobic polyurethane resin with special inorganic filler that provide the material with excellent weathering resistance properties.

Can be applied on dry concrete, fibrous cement, mosaic cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel.

## Applications

Waterproofing and protection of:

- ▲ Roofs.
- ▲ Light roofing made of metal or fibrous cement.
- ▲ Bathrooms.
- ▲ Gypsum and cement boards.
- ▲ Asphalt membranes.

## Advantages

- ▲ Excellent adhesion to almost any surface (special primers may be required for some substrates).
- ▲ Excellent water and UV resistance. The white colour reflects much of the solar energy reducing the internal temperature of the building.
- ▲ Excellent thermal resistance. Max service temperature 80°C.
- ▲ Cold Resistance: the film remains elastic down to minus 40°C.
- ▲ Excellent mechanical properties, high tensile and tear strength, high abrasion resistance.
- ▲ Moisture vapour transmission: the film breathes so there is no accumulation of humidity under the coat.

## Limitations

- ▲ Only white and red colours can be used for exposed areas.
- ▲ Do not use on unsound substrate.
- ▲ Not recommended for waterproofing of swimming pool surfaces in contact with chemically treated water.

## Technical Properties:

Colour:	White, black and red
Specific gravity:	1.35 ± 0.05
Tack free time:	4 hr @ 25°C and 55% RH
Recoat time:	6 – 24 hr
Service temperature:	-40 to 80°C
Hardness shore A: ASTM D2240, DIN 53505, ISO R868	60 ± 5
Tensile strength at break: ASTM D412, DIN 52455	> 5 MPa @ 23°C
Elongation: ASTM D412, DIN 52455	> 300% @ 23°C
Water vapour trans- mission: ASTM E96	0.8 g/m <sup>2</sup> .hr
Adhesion concrete: ASTM D4541	> 2 MPa
QUV accelerated weathering test: ASTM G53	Passed (2000 hr)
Hydrolysis (8% KOH, 15 days @ 50°C):	No significant elastomeric property change
Hydrolysis (H <sub>2</sub> O, 30 days-cycle 60 – 100°C):	No significant elastomeric property change
HCl (pH = 2, 10 days @ RT):	No significant elastomeric property change

- ▲ Since Aquathane R200 cures with moisture, low humidity conditions will extend the tack free time and recoat time.

## Standards

Aquathane R200 complies with ASTM C836.

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## Method of Use

### Surface Preparation

The surface should be clean, dry, sound and free from oil, grease and wax contamination.

Cement laitance, loose particles, mould release agent or curing membranes must be removed.

Fill surfaces irregularities with a suitable product. Maximum moisture content should not exceed 5%. New concrete structures need to dry for at least 28 days.

### Priming

To achieve optimum adhesion strength, it is recommended to prime non-absorbent surfaces like steel, aluminum, PVC and slightly damp or humid concrete substrates with Aquathane Primer W, as for porous concrete substrates, Aquathane MPU primer should be used.

Apply the primer at a rate of 200 gr/m<sup>2</sup> and wait for at least 12 hours before applying Aquathane R200.

Alternatively, on site mixing between Aquathane R200 and DCP Solvent PU with a ratio 70:30 may be used as a primer for porous concrete substrates.

### Application

For spraying with airless spray machine thin with 10% of DCP Solvent PU. For any mixing done on site, a low speed (300 rpm) mixer or electric drill should be used. Apply the material with roller or brush in at least two coats, leave 6 - 24 hours between coats.

### Consumption

- ▲ First coat: 0.75 - 0.9 kg/m<sup>2</sup>.
- ▲ Second coat: 0.75 - 0.9 kg/m<sup>2</sup>.
- ▲ Total consumption: 1.5 - 1.8 kg/m<sup>2</sup>.

### Cleaning

All tools should be cleaned after finishing with paper towels and then wipe by using DCP solvent PU. Do not try to clean rollers.

## Packaging

Aquathane R200 is available in 6 kg, 20 kg and 25 kg packs.

## Storage

Aquathane R200 has a shelf life of 12 months from date of manufacture if stored in the original unopened pails at temperatures between 5°C and 25°C.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

## Cautions

### Health and Safety

Apply in well ventilated areas. Do not smoke. Do not apply near naked flames. In closed areas use force ventilation and carbon active masks. Keep in mind that solvents are heavier than air so vapour concentration is higher in air closer to floor.

For further information refer to the Material Safety Data Sheet.

### Fire

Aquathane R200 contains volatile flammable solvents.

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- ▲ Adhesives.
- ▲ Tile adhesives and grouts.
- ▲ Building products.
- ▲ Structural strengthening.

#### Note:

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