

BOND CLEAR PU

Transparent, Fully Aliphatic, Polyurethane Liquid Membrane for
Waterproofing & protection



PRODUCT DESCRIPTION

Bond Clear PU is a one component high solids, polyurethane fluid, which cures with the humidity in the atmosphere. It produces an elastic, highly durable, highly hydrophobic membrane with excellent UV resistance. Being aliphatic, it does not yellow/discolour when exposed to sunlight. It is based on pure elastomeric, hydrophobic, aliphatic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties. Apply with roller in one or two coats.

FEATURES & ADVANTAGES

- No thinning is required but Solvent may be used.
- Excellent weather and UV resistance.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 °C, max shock temperature 200 °C.
- Resistance to cold: The film remains elastic even down to -40 °C.
- Excellent mechanical properties.
- Good chemical resistance.
- Water vapor transmission.
- Can also be applied in thick, bubble-free, coats.

USES

Waterproofing and protection of:

Tiles, natural stone, wood, verandas and balconies, terraces.

Also suitable for sealing concrete: Applied in thick, bubble-free, coats.

LIMITATIONS

- Not recommended for unsound substrates,

- non-porous substrates, such as ceramic tiles must be primed with Primer first.

APPLICATION PREREQUISITES

Can be successfully applied on:

Tiles, concrete, cement roof tiles, wood, corroded metal, galvanized steel. For information about other substrates, please contact our tech department.

Concrete substrate conditions (standard):

- Hardness: R28 = 15 MPa.
- Humidity: W<10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates

APPLICATION METHOD

SURFACE PREPARATION

Clean the surface using a High pressure washer, if possible. Remove oil, grease and wax contaminants. If used for concrete sealing, cement laitance, loose particles, mould release bring it to Saturated surface dry (SSD) condition. Extra care must be taken to see that there is no stagnant or standing water, any such water must be mopped off. agents, cured membranes must also be removed. Fill surface irregularities with the necessary product.

PRIMING

Priming is required when application is on Non porous substrates, such as ceramic tiles and marble. In this case, Primer is used. It is applied with a clean cloth without leaving any pools of fluid (apply as if wiping the surface).

MIXING

Stir well, manually or with a Low Speed mixer. No thinning is required but Solvent may be used.

APPLICATION

Bond Clear PU is applied as soon as the primer dries (after 15-20 mins) with roller in one or two coats. Do not leave more than 24 hours between coats.

CONSUMPTION

Minimum total consumption: 0.2-1.0 kg/m².

CLEANING

Clean tools and equipment first with paper towels and then using Solvent. Rollers will not be re-usable.

TECHNICAL DATA

In liquid form (Before Application):

PROPERTY	METHOD	SPECIFICATON
Viscosity (Brookfield) Cp	ASTM D2196-86, @ 25 °C	1,000
Specific weight	ASTM D1475/DIN 5321/ISO 2811, @ 20 °C	1.0 gr/cm ³
Solids %	Internal	80-85
Flash point °C	ASTM D93, closed cup	42

Tack free time, @77°F(25°C) & 55% RH hours	-	6
Recoat time hours	-	6-24

In cured form (After Application):

PROPERTY	METHOD	SPECIFICATION
Service temperature	-	-40 to 80 °C
Max. temperature short time	-	200 °C
Hardness (Shore D)	ASTM D2240/DIN 53505/ISO R868	40
Tensile strength at break @ 23°C	ASTM D412/EN-ISO-527-3	350 (35) Kg/cm2 (N/mm2)
Percent elongation @ 23 °C	ASTM D412/EN-ISO-527-3	> 350 %
Water vapor transmission	ASTM E96 (Water Method)	0.8 gr/m2.hr
QUV Accelerated Weathering Test (4hr UV, @ 60 °C	ASTM G53	Passed (3,000 hours)
Thermal resistance (100 days @ 80 °C)	EOTA TR011	Passed

Chemical (hydrolysis) resistance:

Potassium Hydroxide, 8%	10 days @ 50 °C	Unaffected
Sodium Hypochlorite, 5%	10 days	Unaffected
Water absorption	-	< 1.4%

PACKING

20 kg Packing

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible.

HEALTHAND SAFETY

Contains volatile flammable solvents. Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

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