

polyguard

One-component, aliphatic, elastic polyurethane Top Coat.



DESCRIPTION

POLYGUARD is a one-component polyurethane coating, which contains specialty inorganic fillers that upon combination with small amount (5-10%) of POLYBIT WATERPROOFING SOLUTIONS pigment paste offer superior hiding power. This allows minimal consumption of material and omitting of a second coat (in cases of simple UV protection, not traffic resistance) resulting in overall cost reduction. The material is based on the very successful product HYDRAGUARD so it has similar elastomeric properties with other POLYBIT WATERPROOFING SOLUTIONS products. It is based on pure elastomeric hydrophobic polyurethane resin, which results in excellent mechanical, chemical, thermal, UV and natural element resistance properties.

Apply with brush, roller or airless spraying in one or two coats. Minimum consumption per coat: 0.5 kg/m².

COMPLIANCE

POLYGUARD is CE certified as part of the POLYBIT WATERPROOFING SOLUTIONS System, offering increased UV resistance and colour protection.

RECOMMENDED FOR

- Top-coating POLYBIT WATERPROOFING SOLUTIONS range of products.
- Top-coating flooring applications

LIMITATIONS

Not recommended for:

- Unsound substrates
- Application in thick coats

FEATURES & BENEFITS

- Excellent hiding power even in one coat.
- Traffic resistant.
- Strong and uniform adhesion on almost any type of surface.
- Highly hydrophobic.
- Highly durable when exposed to the natural elements, maintains its elasticity even down to -40 °C.
- Excellent heat and ultraviolet/UV resistance, peel or soften up to 90 °C.
- Outstanding resistance to chemicals and mechanical stresses (high tensile strength and abrasion resistance).
- Compatible pigment pastes available in many colours.



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APPLICATION PREREQUISITES

Clean the surface using a high-pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must be removed. Further primer information available on request. The application surface must be dry.

When used as a topcoat, for colour protection of **POLYBIT WATERPROOFING SOLUTIONS** products, it is pre-pigmented from the factory in grey colour. It must be applied **WITHIN 24-72 hours** of **HYDRAGUARD** depending on weather conditions.

Preparation:

When stirring (or pigmenting) take care not to introduce air in the fluid, which may result in bubbling on the cured membrane. Stirring can either be done manually or with a low speed (300 rpm) mixer.

A small sediment may form in the pail after prolonged storage. This can be homogenized in the product with mechanical mixing.

Application:

Apply with brush, roller or airless spraying in one or two coats. Do not exceed 48 hours between coats.

CONSUMPTION

0.5 kg/m² in one or two coats, depending on traffic conditions.

CLEANING

Clean tools and equipment first with paper towels and then using SOLVENT-01. Rollers will not be re-usable.

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.

SAFETY INFORMATION

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.

PACKAGING

20kg



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TECHNICAL SPECIFICATIONS

In liquid form (before application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	400-600
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.2
Tack free time, @ 77 °F (25 °C) & 55% RH	hours	-	6-8
Recoat time	hours	-	24

The cured membrane:

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-40 to 90
Max. temperature short time (shock)	°C	-	200
Hardness	Shore D	ASTM D2240 / DIN 53505 / ISO R868	40
Tensile strength at break @ 23 °C	Kg/cm ²	ASTM D412 / EN-ISO-527-3	400
Percent elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	→ 300
Water vapor transmission	gr/m ² .hr	ASTM E96 (Water Method)	0.8
Thermal resistance (100 days @ 80 °C)	-	EOTA TR011	passed
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB- Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (2000 hours)
Hydrolysis (Potassium Hydroxide 8%, 10 days @ 50 °C)	-	-	no significant elastomeric property change
Hydrolysis (Sodium Hypochlorite 5%, 10 days)	-	-	no significant elastomeric property change
Water absorption	-	-	← 1.4%



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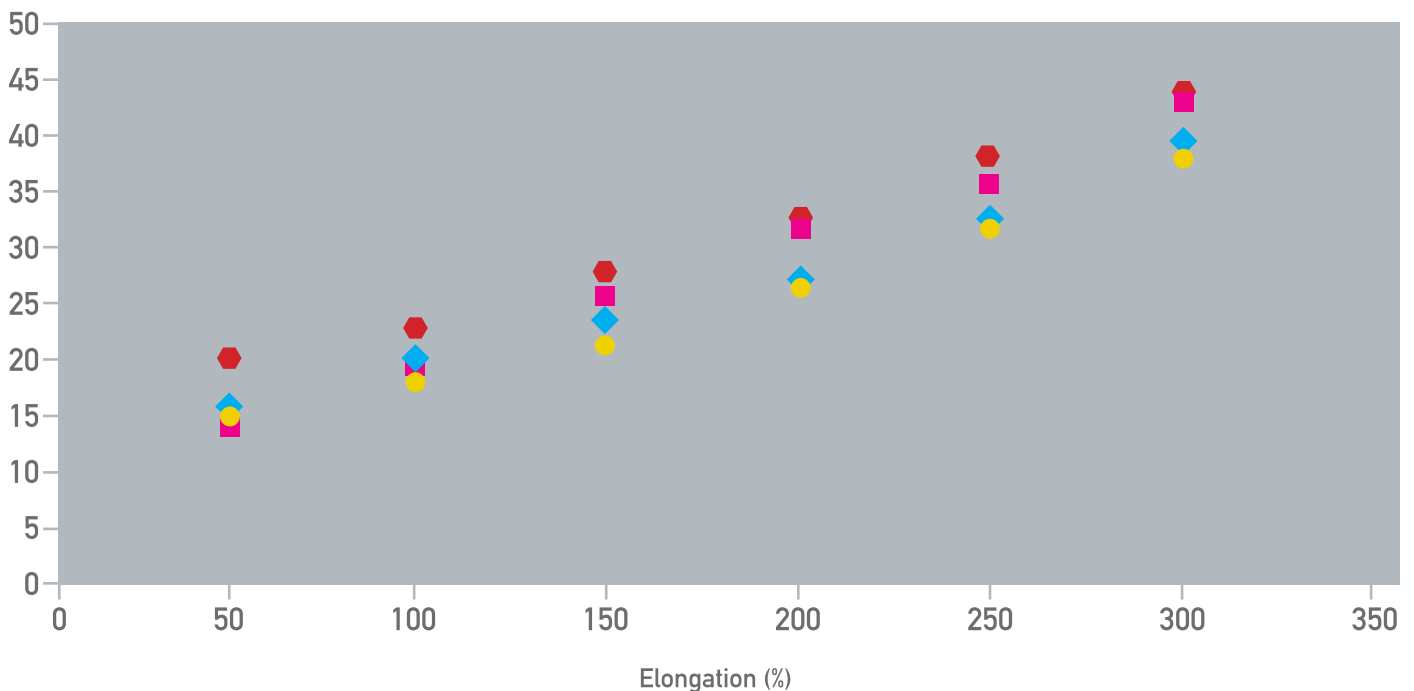
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ELONGATION CHART: CHEMICAL & HYDROLYTIC RESISTANCE

Stress / Elongation POLYGUARD (%)

Tensile Strength (N/mm²)



- ◆ POLYGUARD fully cured
- Hydrolysis (HCl, PH=2, 2 weeks, RT)
- Hydrolysis (KOH, 8%, 15 days @ 50°C)
- QUV (1000 hrs)

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use of Polybit Waterproofing Systems products, are given in good faith based on Polybit Waterproofing Systems current knowledge and experience of the products when properly stored, handled and applied under normal conditions.

It is your responsibility to ensure that our products meet your requirements, are used and handled correctly in accordance with any applicable Australian Standard, our instructions and recommendations and only used for the applications for which they are intended.

In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

We also reserve the right to update information without prior notice to you to reflect our ongoing research and development.

The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with these.



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