# technical data sheet.


# leakfree.

## waterproof superstretch.

lifetime of minimum
**10 years**

stretches up to **800%**

water based
polyurethane

# leakfree.

## description.

**leakfree.** is a simple and economic waterproofing solution to protect walls against leakages, cracks, moldings, etc. It is a one component, low viscosity polyurethane, water based fluid that cures to produce a highly elastic liquid membrane with strong adhesion to many types of surfaces with the help of primer.

It is based on aliphatic polyurethane with special inorganic fillers, which results in excellent mechanical, chemical, thermal, UV and natural element resistant properties.

## recomended for.

Waterproofing and protection of:

- exposed concrete slabs,
- walls,
- roofs,
- bathrooms,
- light roofs made of metal or fibrous cement.

## limitation.

Not recommended for:

- unsound substrates,
- swimming pool surfaces in contact with chemically treated water,
- ground water tank,
- indoor use.

## features & benefits.

- no thinning is required.
- excellent weather and UV resistance when used with **topcoat.**
- excellent thermal resistance, product never turns soft. Max service temperature 80°C.
- excellent mechanical properties.
- non-toxic after full cure.
- water vapor transmission: No accumulation of humidity under the coat.

## application prerequisties.

Standard concrete substrate conditions:

- Hardness: $R_{28}$ = 15Mpa.
- Humidity: W < 10%.
- Temperature: 5-35 °C.
- Relative humidity: < 85%.

Primer selection for special conditions and substrates: **reflecto primer.**

## application procedure.

Clean surface using a high pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, and cured membranes must be removed. Fill surface irregularities with the necessary product.

Priming:
Apply the required primer following the guidelines.

Mixing:
Use a low speed (300 rpm) mixer. Can optionally be thinned with 5% water for application by spraying (airless).

Application:
Apply the material with spray, roller or brush with at least 2-3 coats with 0.3 - 0.5 kg/m2 per coat. Leave 2 to 4 hours between coats.
For spraying, it can be mixed with xylene with ratio 1:5.

For horizontal concrete slab, topcoat (UV protection, scratch resistance, self cleaning) is recommended. To improve service life, scratch resistance, cleaner surface, and anti mold properties.

## consumption.

Every coat: 0.3-0.5 kg/$m^2$ minimum 3 coat

Minimum total consumption: 1.0-1.5 kg/$m^2$.

For warranty leakfree application, the total consumption ought to be 1:1 (1kg / 1m2)

Application on Walls:
The use of **reflecto primer** is recommended for extended service life,with a consumption of 0.1 kg /$m^2$

Mix pail well before use. Minimum coats are 2-3, recommended with 0.3-0.5 kg/$m^2$ per coat, or a total of 0.7-1 kg/$m^2$. Paint in cross perpendicular directions for every coat.

Application on Horizontal concrete slab:
Primer selection for different substrates is recommended. Depending on the substrates, usually consumption of 0.1 - 0.2 kg/m2 for reflecto primer is sufficient.

Coat **leakfree.** using roller, brush or spray method with a total consumption of 1 - 1.5 kg with a minimum of 3 layers. Paint in cross perpendicular directions for every coat with a consumption of 0.3 - 0.5 kg per $m^2$ per layer.

## cleaning.

Clean tools and equipment with water before paint dries.

## packaging.

1 kg, 4kg, 20 kg

## shelf life.

Can be kept for a maximum of 6 months in the original unopened pails in dry conditions with temperatures between 5-30°C. Once a pail has been opened, use it as soon as possible.

## technical specifications.

The product in liquid form (before application):

| property | unit | method | specification |
|---|---|---|---|
| Viscosity (BROOKFIELD) | cP | ASTM D2196-86, @ 25°C | 1000-2000 |
| Specific weight | gr/$cm^3$ | ASTM D1475 / DIN 53217 / ISO 2811,@ 20°C | 1.1 |
| Flash point | °C | ASTM D93, closed cup | N/A |
| Tack free time, @ 77 °F (25°C) & 55% RH | hours | - | 4 |
| Recoat time | hours | - | 2 to 4 |

The cured membrane

| property | unit | method | specification |
|---|---|---|---|
| Service temperature | °C | - | -20 to 80 |
| Max. temperature short time (shock) | °C | - | 200 |
| Hardness | Shore A | ASTM D2240 / DIN 53505 / ISO R868 | 60 |


The cured membrane

| property | unit | method | specification |
|---|---|---|---|
| Tensile strength at break @ 23 $^{o}$C | Kg/cm$^2$ (N/mm$^2$) | ASTM D412 / EN-ISO-527-3 | 55 |
| Percent elongation @ 23 $^{o}$C | % | ASTM D412 / EN-ISO-527-3 | > 800 |
| Water vapor transmission | gr/m$^2$.hr | ASTM E96 (Water Method) | 0.8 |
| Adhesion to concrete | Kg/cm$^2$ (N/mm$^2$) | ASTM D4541 | > 2 |

classification according to EOTA (European Organization of Technical Assessment)

Certified quality, environmental and occupational health & safety management systems:
ISO 9001/14001 & OHSAS 18001.

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