Waterproofing – Polyurea – Hand Applied

SMARTCARE ULTRON POLYUREA

Two component, hand applied, polyurea waterproofing membrane

Description

SmartCare Ultron Polyurea is a hand applied, cold cured Polyurea waterproofing membrane with very rapid cure times and excellent elongation. SmartCare Ultron Polyurea is a two component, moisture tolerant, easy to apply, flexible, seamless, waterproofing solution for a wide range of waterproofing applications.

SmartCare Ultron Polyurea 2K is a two-component, cold applied, Polyurea based liquid membrane. The material cures rapidly and forms a highly durable seamless, tough elastomeric waterproofing membrane in less than 2 hours. Can be Applied with brush, roller, squeegee or airless spray in one or two coats.
Simply mix, stir, pour and spread.

Uses

- Waterproofing of roof tops.
- Waterproofing of balconies, terraces and verandas
- Over coat waterproofing of old bitumen felts, asphalt felts, EPDM, PVC membranes and acrylics.
- General construction waterproofing.
- Waterproofing under plant and equipment on roof tops.
- Sealing and protecting substrates from weather, impact, chemicals attack and abrasion.
- Repairing mechanical damage of hot sprayed Polyurea lining systems
- Polyurethane insulation foams
- Bathrooms
- Verandas and balconies
- Light metal roofing made of metal or asphalt membranes.

Characteristics

- Simple application – Squeegee / rake trowel, roller or brush
- Provides waterproofing properties within 30 minutes of application
- minimizes bad weather damage after application.
- Completely seamless membrane. Zero welds, overlaps or joins.
- Cold applied and cold cured. No requirement for specialized
- application equipment.
- Can be applied over the top of old existing waterproofing systems.
- Conforms exactly to substrate shapes eliminating potential stress points
- when covering with final floor slabs or other toppings such as pavers.
- Excellent crack bridging properties.
- Excellent adhesion to nearly all substrates - concrete, steel, aluminum,
- wood, foam etc.
- Can transgress multiple substrate types in one
- application.
- Mechanical damage can be easily repaired.
- 800% elongation.
- 100% solids, VOC-free, Solvent free
- Good abrasion resistance
- Good impact resistance
- Excellent thermal stability
- High static and dynamic crack-bridging capacity
- Elongation capacity of more than 800% (ISO 37)
- Excellent resistance to alkalis and diluted acids
- No reinforcement required.

Coverage

Theoretical coverage is approx. 1 – 1.2 kg/m^2/1mm

Packing

10 kg Base
10 kg Hardener

Technical Data

Mixing ratio of Comp. A to Comp. B	1:1
Recommended thickness per layer	0.5 – 1mm.
Recommended membrane thickness [mm]	Minimum: 1 mm on concrete
Rain resistance time (approx.)	30 minutes.
Over coat window [h]	30 minutes - 12 hours
Curing/loading after	Foot traffic: 30 – 60

	Minutes | Mechanical: 12 hours
Full cure	5 days
Temperature range for application (ambient) [°C]	0 – 50 C
Packaging	10 Kg Base, 10 kg Hardener packs

Physical Properties

VOC-content DIN EN ISO 11890-1 / ASTM D-1259	0%
Solids content DIN EN 827 / ASTM D-2697	100%
Tensile strength [MPa] ISO 37-2005 / ASTM D-638	≥ 6
Elongation at break [%] DIN 52455 / ASTM D-412	800
Hardness [Shore A] ISO 868-2003 / ASTM D-2240	70
Abrasion resistance ASTM D-4060	10 milligrams
Resistance to mechanical damage by static impression. In house lab	High resistance
Resistance to water pressure DIN EN 1928	No leak (1m water column 24 hours)
Crack bridging In house lab	4 mm
Service temperature In house lab	-40C to +90C
Pull off strength [N/mm2] ASTM D-903	Concrete: ≥ 1.5 (Concrete failure)
Storage conditions [°C] DIN EN 12701	10 – 30 (Avoid product freezing)
Shelf life -	Approximately 12 months unopened and stored correctly

*we recommend in all applications involving chemicals, a pre-test of the lining's suitability in the consumer's application is conducted. Consult Asian Paints Berger Technical Team

Application Method

- All substrates should be thoroughly cleaned and properly prepared before applying SmartCare Ultron Polyurea.
- Clean the substrate using a high-pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed Consult with Asian Paints Berger technical department for substrate preparation requirements and methods.
- Surface irregularities should also be filled
- It is recommended to seal porous low-quality concrete surface s with Apcoflor HFP 120 primer clear before applying SmartCare Ultron Polyurea.
- Stir the contents of the B- component container using a slow RPM stirrer.
- Combine the B-component and the A-component at the specified ratio by volume and stir the combined product using a low speed mixer (300 rpm), Avoid using a high-speed stirrer and inducing air bubbles into the mix.
- Pour the SmartCare Ultron Polyurea onto the prepared substrate and spread using a rake trowel, roller or brush.
- If a slip resistance surface finish is required broadcast clean dry quartz aggregates into the final layer of SmartCare Ultron Polyurea whilst it is still wet.

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material
Safety Data Sheet

Safety and handling

- All applicators of SmartCare Ultron Polyurea should be trained and approved by the manufacturer.
- Wear suitable respiratory protection when using.
- Avoid eye and skin contact.
- Store chemical drums in a cool dry environment. Avoid storing chemicals for long periods in direct sunlight.
- Do not store chemicals next to food stuffs.
- Ensure chemical drums are kept tightly sealed and avoid ingress of air and moisture.

- Once the container has been opened all the contents should be used.

Note: The information supplied in our literature or given by our employees is based on extensive experience and, together with that supplied by our agents or distributors, is given in good faith to help you. Our company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of work, we accept no liability for any loss or damage which may arise as a result thereof.

Version No. V01/23. Please note that this datasheet supersedes all previous versions UAE

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