Technical Data Sheet

AB-SEAL 5000

1-C-PU-hybrid-waterproofing / roof coating

Description:

1-component polyurethane hybrid sealing, coloured
VOC < 1 %, very low emission

Characteristics:

- UV- and colour resistant
- elastic and crack-bridging
- free of solvents, isocyanates and plasticizers
- root resistant
- free of heavy metal catalysts
- for outdoor use
- flame retardant
- water vapour permeable
- high CO_2 - tightness
- inert and harmless once cured

Application:

AB-SEAL 5000 is suitable for use on concrete, cement screed, wood, fibre cement and mineral sanded bitumen felt (weathered or new). **AB-SEAL 5000** is applied as seamless surface protection coating for roofs and drains, balconies, pergolas, terraces as well as waterproofing for buildings. It cures at temperatures from +5°C. In combination with suitable primers **AB-SEAL 5000** can also be used on different substrates and for other water sensitive projects. Please consult us.

N/B:
As a rule, a suitable fabric (e.g. polyester fleece) is embedded to achieve layer thickness control and improved tear resistance.

Consumption:

approx. 3 - 4 kg/m², with additional fabric inlay or according to requirements.

Resistant to:

- water / salt water
- diluted acids
- diluted alkalis
- industrial gases
- air pollution
- flying sparks and radiant heat

Technical Data:

Mixing ratio n/a	1-component
Density (23°C)	approx. 1.4 g/cm³
Volume solids	approx. 100 %
Viscosity (23°C)	approx. 4500 mPa·s ± 1500
rainproof* after resilient* after recoatable* after	approx. 60 minutes approx. 12 hours approx. 12 hours - max. 24 hours
*Measurements at +23°C and a relative humidity of 50 %. Weather conditions such as wind, humidity and temperature changes the indicated values. Final curing after > 4 weeks.	

Details for application:

Pot life (5°C / 23°C / 30°C)	1-component
Substrate temperature	minimum 5°C up to maximum 30°C
Material temperature	15°C - 25°C
Minimum relative humidity of air Maximum relative humidity of air	40 % (dew point +3°C) 90 % (dew point +3°C)
Curing time / foot traffic (5°C / 23°C / 30°C)	24 hours / 12 hours / 12 hours
Curing time / mech. resistance (5°C / 23°C / 30°C)	48 hours / 36 hours / 36 hours
Curing time / chem. resistance (5°C / 23°C / 30°C)	7 days / 5 days / 5 days
All above values are approximate and may be used as a guideline for specifications	

Packaging:

6 kg - pails

Colour:

grey
- due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur -

Storage:

6 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. Store under cool and dry conditions / protect from frost and direct sunlight! Please consult us.

1. Surface preparation
Concrete:
Prior to the application the substrate must be prepared by mechanical means using qualified equipment, e.g. Blastrac® shot blasting.
Minimum requirements:

- free of cement laitance, dust, oil, fat and other contaminants
- open textured, absorbent surface
- pull off strength min. 1.5 N/mm²
- concrete residual moisture max. 6 %

Depending on the condition of the substrate the surface must be made non-porous by the application of a primer and / or key coat with **AB-POX 010**, followed by a light sprinkle of clean, dry quartz sand. Once cured, carefully remove excess sand.
Bituminous, sanded roof surfaces:
Thoroughly clean surface mechanically. Usually no primer is required.
Metal: Remove areas that are oxide layers, prime with **AB-COR 955 SW-H**. Usually no primer is required.
See also "general preparation and application instructions" sheet.

2. Application
Prior to mixing, the temperature of the product must be between 15 - 25°C. Mix the material using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. **AB-SEAL 5000** is evenly applied with a paint-roller or a rubber squeegee (smooth or toothed) in the desired layer thickness. Seal opened containers very well, as the product in the bucket forms a skin due to the ingress of humidity and this skin will lead to defects in the coating if it is not carefully removed. **AB-SEAL 5000** is usually applied in 2 layers. On roof surfaces we recommend to embed a suitable fabric (polyester fleece) into the coating system. In this case a 1st layer of **AB-SEAL 5000** is applied; consumption approx. 1.5 - 2 kg/m². The polyester fleece is worked into the fresh coating without wrinkles and voids. The fleece must overlap at least 5 cm.
After insertion of the fabric (polyester fleece), a 2nd layer of **AB-SEAL 5000** is applied on the fresh coating to embed the fabric (polyester fleece) completely; consumption approx. 1.5 - 2 kg/m². This process ensures an even layer thickness of the coating, even on rough and angular substrates. Before, during and after the coating, the dew point distance (+3°C) must be observed.

3. System description
The following figures are for ambient and surface temperatures of 15 - 23°C. Both high and low temperatures will influence the filler ratio and the consumption per m².

Primer on concrete:
AB-POX 010, clear
Consumption: approx. 0.4 - 0.5 kg/m², lightly sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.3 kg/m²)

Key coat on concrete:
AB-POX 010 + quartz sand
Consumption: approx. 0.6 kg/m² resin plus quartz sand, lightly sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.3 kg/m²).

Corrosion protection (optional):
AB-COR 955 SW-H, silk grey
Consumption: approx. 0.3 kg/m².

Metal primer (if required):
AB-COR 955 SW-H, silk grey
Consumption: approx. 0.3 - 0.4 kg/m², lightly sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.3 kg/m²).

Roof coating ("wet to wet"):
AB-SEAL 5000, grey
Consumption: 2 x approx. 1.5 - 2 kg/m² with embedding a fleece.

Should the coating be applied too thick, it will have a negative affect on the curing duration.

N/B:
A further coating is possible up to 16 hours after application, without further preparation. Afterwards, the surface must be roughened before another layer can be applied. Alternatively, quartz sand can be sprinkled into the fresh material at the point where work is to be continued.

4. Chemical resistance

- diluted acids and alkalis
- water / salt water / sewage
- industrial air pollution

5. Packaging
6 kg - drum

6. Health and safety
GISCODE RS10
Avoid inhalation of the vapours and contact with skin. Wear suitable protective clothing, gloves and eye / face protection. Adequate ventilation of the working area is recommended. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When using do not eat, drink, smoke and keep away from sources of ignition. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Safety Data Sheet.

7. EU Directive ("Decopaint-RL"):
Acc. to the EU Directive 2004/42/EG the maximum allowed content of VOC (Product category AII / i / type SB) is 500 g/l (Limit 2010) for the ready to use product. This product is in accordance with the EU Directive 2010.

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