weber.dry rapidcoat 250 H

Solvent-free, very fast curing hybrid polyurea membrane

Technical Data Sheet
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Description

Two component, solvent and VOC free, elastic, very fast curing hybrid polyurea membrane applied by high-pressure bi-mixer type heated pumps

Reference standards

EN 1504-2

Advantages

- Very fast reactivity and curing
- Excellent crack-brdiging and flexibility
- Excellent adherance on various substrates
- Very good tensile and structural strength
- Forms a continuous waterproofing layer
- Solvent-free, environmentally friendly
- Resistant to UV

Application areas

Used as waterproofing and coating material on roofs, terraces, balconies, light foot traffic areas like public walkways; tile, plaster, marble and other surfaces; ground concrete and load bearing walls; coating material on playgrounds and other decorative applications.

Application substrates

Interiors and exteriors;

- Concrete,
- Cement based plasters and screeds,
- Metal, wood, tiles, geotextile, PU foam,
- Heat insulation boards (PU foam, EPS, XPS, etc.)

Please consult us for all other application substrates.

Preparation of substrates

- Prepare the substrate mechanically by sanding or shotblasting to remove all traces of oil, grease, dirt and any other material or substances which could compromise the adhesion.
- Major deformations, surface defects, hollows, cavities and detached parts on the substrate should be repaired at least 24 hours before **weber.dry rapidcoat 250 H** application using **weber.rep MA 200**; where quick application or sulphate resistance is needed, **weber.rep HKS** should be used instead.
- Before application; all dust, loose and crambling particles must be removed with brush or industrial vacuum cleaner.
- Pull off strength of the substrate should be at least 1,5 N/mm² and concrete residual moisture should at most 4% pbw (with an appropriate moisture tolerant primer should be at most 6% pbw). The moisture content should be measured by moisture meter.
- The application substrate has to be primed using suitable **Weber** primers to achieve an even surface and better adhesion.
- Light scattering of 0,3-0,8 mm quartz sand recommended before priming for better adhesion and extending the maximum waiting time prior to the polyurea coating.
- Avoid excess scattering to prevent blister formation.

Application conditions

- Avoid application in extremely hot, rainy and/or windy weathers.
- Beware of condensation; the substrate must be at least 3°C above dew point to reduce the risk of condensation. Relative air humidity for application should be lower than 85%. Prior to application, ensure substrate moisture content, relative air humidity and dew point.

	Minimum	Maximum	Optimum
Surface temp.	0°C	+50°C	5-30°C
Ambient temp.	0°C	+50°C	20-30°C
Relative humidity	%0	%85	%25-50

Application

- **weber.dry rapidcoat 250 H** must be applied within 12-24 hours after applying the primer.
- The temperature of the substrate must be at least 3°C higher than the dewpoint temperature, while the level of residual humidity must be no higher than 4%.
- Component B (Amine resin) should be stirred thoroughly at least 30 minutes using a drum stirrer to a homogenous state and even colour.
- Use a high-pressure, industrial, bi-mixer pump with flow and temperature control, preferably with a self-cleaning gun for the application of **weber.dry rapidcoat 250 H**. The machine should be able to spray components in 1:1 volume ratio.
- For the best performance, regularly check temperature and pressure values to ensure they remain constant during the application.
- Both components should heated between +70°C and +80°C.
- Application pressure should be between 180 and 200 bar.
- The accuracy of mixing and dosage must be controlled regularly with the equipment.
- **weber.dry rapidcoat 250 H** must be applied continuously on all horizontal and vertical substrates.
- Always apply to a test area first.

Application tools

High-pressure, bi-mixer type heated pump

Consumption

2,1-2,2 kg/m² (for 2 mm application thickness)

Points of attention

- Polyurea system components should not be diluted under any circumstances.
- Amine resin component should be mixed before application.
- Always apply to a test area first.
- Surface preparation strongly affects the performance.
- For spray application the use of protective health and safety equipment is mandatory.
- Polyurea components are sensitive to moisture, should be kept in tightly closed containers.
- All tools used for application should be cleaned with solvent immediately after application. Once hardened, cleaning may only be carried out mechanically.

Technical specifications

PRODUCT	**weber.dry rapidcoat 250 H**	
	A Component	B Component
Chemical structure	MDI Prepolimer	Amin Resin
Colour	Translucent yellow	Grey
Consistency	Fluid	Liquid
Density	1,11±0,03 g/cm³	1,02±0,02 g/cm³
Viscosity	700-800	300-600
Solid content	100%	100%
VOC content	0	0
Packaging	225 kg	200 kg
Shelf life	9 months	9 months

A:B mix ratio (by volume)	100:100
A:B mix ratio (by weight)	112:100
Gel time	5-10 seconds
Tack-free time	15-30 seconds
Recoat time	0-12 hours
Post cure time	24 hours
A component temp.	70-71°C
B component temp.	67-68°C
Hose temperature	67-68°C
Machine pressure	140-180 bar
Heat resistant	Between -30°C and +100°C
Ambient temperature	Between -10°C and +50°C

Final product structure	Solid elastomeric membrane
Modulus	100% elongation ≥5 Mpa
Tensile strength	≥15 Mpa
Elongation at break	≥300%
Shore D	33-38
Shore A	85-90
Tear strength	≥25 Mpa
Impact resistance	Class III
Taber abrasion	<240 mg (H22, 1000 rpm)
Pull-off strength	Concrete: ≥2 Mpa Steel: ≥6 Mpa
CO2 permeability	76,45 m
Capillary absorption and permeability to water	0,021 kg/m²h0,5
UV resistance	No swelling, cracking or flaking (colour change)

Chemical resistance

- Chemical resistance tests made using chemical submersion method for 6 months.
- 5: Resistant
  4: Resistant - Just colour change
  3: Swelling
  2: Conditional - Short-time spillage
  1: Not recommended

Name of chemical	Result
Sulphuric acid (%10)	4
Sulphuric acid (%20)	4
Sulphuric acid (%30)	1
Hydrochloric acid (%10)	4
Hydrochloric acid (%20)	2
Nitric acid (%10)	1
Acetic acid (%10)	3
Chromic acid	1
Hydrofluoric acid (%10)	1
Phosphoric acid (%10)	5
Phosphoric acid (%10)	5
Gasoline	2
Ammonium hydroxide (%10)	5
Ammonium hydroxide (%20)	5
Potassium hydroxide (%10)	5
Potassium hydroxide (%20)	3
Sodium hydroxide (%10)	5
Sodium hydroxide (%20)	5
Sodium hydroxide (%50)	4
Drinking water (1 mg/l klor)	4
Chlorinated pool water	4
Vinegar (%5)	5
Hydrogen peroxide (%3)	2
Mineral oil	5
Hydraulic oil	4
Engine oil	4
Toluen	2

Name of chemical	Result
Methanol	2
Ethanol (%10)	5
Acetone	2
MEK	2
Xylene	2

Storage

Packaging	A Component: 225 kg metal barrel B Component: 200 kg metal barrel
Colour	Grey
Shelf life	• 9 months from date of manufacture when stored unopened and undamaged between 20-30°C in a dry, moisture-free environment. • Packages should be kept tightly closed when not in use. • Packages should be protected against frost.

Safety precautions

- Use appropriate safety equipment (mask, gloves, glasses, protective clothing).
- Protect your eyes and face.
- Avoid direct contact with eyes and skin.
- In case of contact with eyes, rinse immediately with plenty of clean water and seek medical attention.
- Please read Safety Data Sheet (SDS) for further safety information.

LEGAL DISCLAIMER

Saint-Gobain Weber Yapı Kimyasalları San. ve Tic. A.Ş. is not responsible for any errors arising from the use of product beyond its intended purpose or not complying the application procedures mentioned above.

The stated times apply for 20°C substrate and ambient temperature; increase at lower temperatures and decrease at higher temperatures.
***Saint-Gobain Weber Yapı Kim. San. ve Tic. A.Ş.** is not responsible for the application errors arising from use of product beyond its intended purpose of failure to comply with the forgoing application conditions and advice on the product.*