PMMA-Based Waterproofing Coating

TECHNICAL DATA SHEET

Revision: 16.02.2017 **Trade name: Wecryl R 230**

Brief description

Wecryl R 230products are high-grade, PMMA-based waterproofing resins with low-temperature flexibility and are fleece-reinforced to create durable and reliable roof waterproofing membranes and to waterproof joints on water-impermeable concrete. Their liquid application allows seamless waterproofing systems to be applied to large areas, and even the most complex roof penetrations and upstands to be securely incorporated.

Material

2-component, fast-curing and highly flexible PMMA-based waterproofing (PMMA = polymethyl methacrylate)

Properties and advantages

- Highly flexible and crack-bridging even at extreme sub-zero temperatures
- Permanently weather-resistant (UV-, hydrolysis- and alkali-resistant)
- Fully bonded to the substrate, therefore no flow paths for water
- Easy and fast application
- The most complex roof penetrations can be securely incorporated in the seamless waterproofing system
- Fast-curing
- Can also be applied at sub-zero temperatures
- Can be applied to almost all substrates, including variable substrates (when combined with WestWood primers)

Solvent-free

Test certificates and technical approvals for the highest performance categories (ETAG 005and Deutsches Dachdeckerhandwerk [German Roofing Trade] "Rules for Waterproofing Systems". Meets the requirements for the sectors roof and joint waterproofing of water-impermeable concrete structural components

Areas of application

Wecryl R 230/TT /-thix /-thix HT is applied together with WestWood fleece reinforcement for waterproofing flat areas and details on roofs as well as for waterproofing water-impermeable concrete joints. For utilised roof areas Wecryl R 230is applied together with the following WestWood products or as a waterproofing membrane underneath surfacing provided by others.

Differences between Wecryl R 230,-thix, -thix HT und -TT

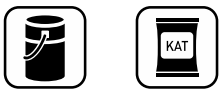
Wecryl 235thix and Wecryl R 230thix HT are variants of Wecryl 235with improved non-sag/thixotropic properties to reduce run-off when the waterproofing resin is applied to sloping and vertical surfaces. They are therefore used primarily for the waterproofing of details.

Wecryl R 230thix HT is a variant of Wecryl R 230thix and is optimised for application at high temperatures. It possesses optimum non-sag properties when applied to vertical surfaces, especially at higher temperatures, and ensures good workability under those conditions. We recommend using this variant at temperat ures ≥ 25 °C.In principle, Wecryl R 230thix HT can also be applied at temperatures below 25 °C.

Wecryl R 230TT is a variant of R 230that is optimised for application at low temperatures. The application and curing properties, in particular, have been modified specifically for low-temperature use. We recommend that this

product is applied at temperatures below 10 °C.Wecryl R 230TT can also be used for waterproofing details with vertical surfaces.

Pack size



The 5, 10 and 25 kg containers are supplied with catalyst.

Wecryl R 230, Wecryl R 230thix, Wecryl R 230thix HT:

5.00kg	Wecryl R 230thix /Wecryl R 230thix HT only
0.10kg	Weplus catalyst (1 x 0.1 kg)
5.10kg	

10.00kg	Wecryl R 230/Wecryl R 230thix /Wecryl 230thix HT
0.20kg	Weplus catalyst (2 x 0.1 kg)
10.20kg	

25.00kg	Wecryl R 230/Wecryl R 230thix /Wecryl 230thix HT
0.50kg	Weplus catalyst (5 x 0.1 kg)
25.50kg	

Wecryl R 230TT:

5.00kg	Wecryl R 230TT
0.20kg	Weplus catalyst (2 x 0.1 kg)
5.20kg	

10.00kg	Wecryl R 230TT
0.40kg	Weplus catalyst (4 x 0.1 kg)
10.40kg	

25.00kg	Wecryl R 230TT
1.00kg	Weplus catalyst (10 x 0.1 kg)
26.00kg	

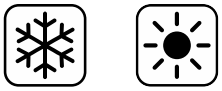
Colours

Wecryl R 230/-TT /-thix /-thix HT is available in the following standard colours:
RAL 7032Pebble grey
RAL 7043Traffic grey (Wecryl R 230thix/Wecryl R 230thix HT only)

Storage

Store products sealed in their original airtight container and in a cool, dry and frost -free place. The unopened product has a shelf life of at least 6 months after delivery. Direct sunlight on the containers should be avoided, including on site. After rem oving some of the contents, reseal the containers so they are airtight.

Application conditions



Temperatures

The product can be applied within the following temperature ranges:

Product	Temperature range, in °C		
	Air	Substrate*	Material
Wecryl R 230	-5 to +35	+3 to +50*	+3 to +30
Wecryl R 230thix /-thix HT	-5 to +35	+3 to +50*	+3 to +30
Wecryl R 230TT	-15 to +25	-10 to +30*	+3 to +20

* The substrate temperature must be at least 3 °C above the dew point during application and curing.
The substrate temperature must not be less than +3 °C if a topping is applied to the surface. Reaction problems can occur at lower temperatures.

Humidity and moisture
The relative humidity must be ≤ 90 %.
The surface to be coated must be dry and ice-free.
The surface must be protected from moisture until the coating has hardened.

Reaction times and required amounts of catalyst

	Wecryl R 230/thix /-thix HT (at 20 °C, 2 % catalyst)	Wecryl R 230TT (at 3 °C, 4 % catalyst)
Pot life	approx. 15 minutes	approx. 20 minutes
Rain-proof	approx. 30 minutes	approx. 45 minutes
Walkable/overlayable	approx. 1 hour	approx. 75 minutes
Fully cured	approx. 3 hours	approx. 6 hours

Higher temperatures or greater proportions of catalyst will reduce reaction times, while lower temperatures and smaller proportions of catalyst will increase reaction times.
The following table indicates the recommended amount of catalyst required to adjust the curing reaction to the temperature.

Product	Substrate in °C; required amounts of catalyst in % w/w (guide)												
	-10	-5	+3	+5	+10	+15	+20	+25	+30	+35	+40	+45	+50
R - /thix HT	-	-	4%	4%	4%	2%	2%	2%	2%	2%	1%	1%	1%
R 230TT	6%	6%	4%	4%	4%	2%	2%	2%	2%	-	-	-	-

Consumption rates

- As technical membrane approx. 2.50 kg/m²
- As membrane + covering layer approx. 4.00 kg/m²

Technical data

Density: 1.21 g/cm³
Water vapour diffusion resistance factor: 4.335

Product application


Application equipment /tools
For mixing the product:
- Twin-paddle stirrer

For applying the product:
- Sheepskin roller
- Brush (only for areas not accessible with the sheepskin roller)

Substrate to be coated
Apply the waterproofing resin to the cured WestWood primer or to the suitably prepared substrate.

Mixing
First stir the tub contents thoroughly.

Then add the catalyst while stirring at the slow-speed setting and mix for 2 minutes. Make sure that the product on the base and sides of the container is mixed in.
At product temperatures < 10 °C the product should be stirred for 5 minutes, as the catalyst will take longer to dissolve.

Application
Wecryl R 230/thix:
Use Wecryl R 230for waterproofing horizont al areas. Wecryl R 230thix /-thix HT is used for vertical surfaces (e.g. upstands on details).

Wecryl R 230TT:
Wecryl R 230TT is used at low temperatures (see table) and can be applied equally to horizontal and to vertical surfaces.
Apply a generous and even layer of the mixed material to cover the entire area (at least 1.5 kg/m²), then immediately embed the special synthetic -fibre Weplus fleece for waterproofing resins and use a sheepskin roller to remove any air bubbles. Cover the fleece straightaway (wet in wet) with a second layer of material (at least 1 kg/m², as required). In each case use a sheepskin roller to spread the material over the surface.
Fleece overlaps must be at least 5 cm wide.

Preparation for subsequent layers
Surfacing supplied by others and applied subsequently:

a) Fully bonded surfacing (e.g. tiles)
Once the waterproofing resin has cured, apply an additional covering layer of Wecryl R 230/TT /-thix /-thix HT (approx. 1.5 kg/m²) and top with a generous amou nt of sand while still wet (quartz sand 0.7 – 1.2 mm).
Vacuum off the excess/loose sand after the surface has hardened.
The topping gives the surface the necessary roughness that allows the subsequent surfacing supplied by others to be bonded onto the base.
Never apply the sand topping to the waterproofing layer. Only use dry quartz sand (e.g. WestWood quartz sand).

b) Loose -laid surfacing (e.g. stone slabs)
Once the waterproofing resin has cured, apply an additional covering layer of Wecryl R 230/TT /-t hix /-thix HT (approx. 1.5 kg/m²). This protects the waterproofing layer against the mechanical loads of the surfacing supplied by others.

Cleaning

When work is interrupted or completed clean the tools thoroughly with Weplus Cleaning Agent within the pot life of the material (approx. 10 minutes). This can be done with a brush. Do not use the tools again until the cleaning agent has evaporated fully.
Simply immersing the tools in the cleaning agent will not prevent the material from hardening.

TECHNICAL DATA SHEET

Information on safety and risks

Please refer to the safety data sheets for the products used.

General information

The above information, especially information about application of the products, is based on extensive development work as well as many years of experience and is provided to the best of our knowledge.
However, the wide variety of requirements and conditions on site mean that it is necessary for the applicator to test the product to ensure that it is suitable for the intended purpose. Only the most recent version of the document is valid. We reserve the right to make changes to reflect advances in technology or improvements to our products.

Revised: 16.02.2017