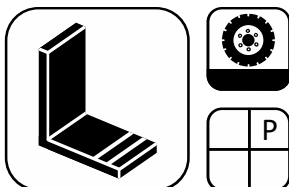


## Wecryl Surface Protection System OS 11a



### Brief description

The Wecryl Surface Protection System OS 11 a is a high-quality, flexible PMMA coating system that has been tested in accordance with German guidelines and standards TR-Instandhaltung, DAfStb-RiLi SI 2001 and DIN EN 1504-2. The waterproofing system, comprised of an elastic surface protection layer (PESPL) and a crack-bridging covering layer, is therefore ideal as a surface protection layer with enhanced dynamic crack-bridging properties for areas suitable for foot and vehicle traffic. The surface can be created with a wide range of colours, patterns or markings. Its outstanding crack-bridging properties make the system an economical and high-quality solution for multi-storey car parks.

### Properties and advantages

#### With Wecryl 271 as PESPL

- Highly flexible and crack-bridging even at temperatures as low as -20 °C (crack-bridging class B 3.2)

#### With Wecryl 279 as PESPL

- Highly flexible and crack-bridging even at temperatures as low as -30 °C (Class B 4.2 – dynamic crack bridging as per DIN EN 1062-7)  
(Class A 5 – static crack bridging as per DIN EN 1062-7)

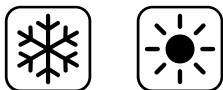
#### With either of these PESPL alternatives

- Tested in accordance with class OS 11a as defined by German standard TR-Instandhaltung
- No embedded fleece or mesh required if laid in accordance with TR-Instandhaltung
- Reaction to fire classification B<sub>fi</sub>-s1
- Suitable for heavy duty (vehicles, foot traffic)
- Fully bonded to the substrate, therefore no flow paths underneath for water
- Can be applied to almost any substrate
- Permanently weather-resistant (resistant to high and low temperatures, UV rays, hydrolysis)
- Resistant to most commonly used acids and alkali solutions
- Wide range of design options (colour finish, road markings etc.)
- Solvent-free
- Fast and easy application

### Areas of application

- Surface protection and waterproofing of concrete structural components with near-surface and/or separating cracks and regular mechanical stress
- Foot and vehicle traffic
- Exposed decks, intermediate decks and floor slabs of car parks

### Application conditions



#### Temperatures

The system can generally be applied within an ambient temperature range between min. 3 °C and +35 °C. Some products are also suitable for application at sub-zero temperatures. Please refer to the table below for exact details.

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Product	Temperature range, in °C		
	Air	Substrate*	Material
<b>Primer layer</b>			
Wecryl 171	+3 to +35	+3 to +50*	+3 to +30
Wecryl 178	+3 to +35	+3 to +50*	+3 to +30
<b>Waterproofing of details</b>			
Wecryl R 230	-5 to +35	+3 to +50*	+3 to +30
WeFleece			
<b>Waterproofing of main area/ PESPL</b>			
Wecryl 271	-5 to +35	+3 to +40*	+3 to +30
Wecryl 279	-5 to +35	+3 to +40*	+3 to +30
<b>Protective layer</b>			
Wecryl 333	-5 to 35	-5 to +40*	+3 to +30
<b>Wearing layer</b>			
Wecryl 407	-5 to +35	+3 to +40*	+3 to +30

\* 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. Curing problems can occur at lower temperatures.

### Humidity and moisture

The relative humidity must be ≤ 90 %.

The surface to be coated must be dry and free of ice.

The surface must be protected from moisture until the coating has hardened.

### Application rates and curing times

Primer layer	Application rate [kg/m <sup>2</sup> ]		
	Smooth substrate	Fine-sandy	Rough
Wecryl 171	Approx. 500 g/m <sup>2</sup>	* **	* **
Wecryl 178	Approx. 500 g/m <sup>2</sup>	* **	* **

\* Roughness heights must be determined in accordance with RiLi-SIB (determination of roughness height) and an additional operation may be required to level out or smooth over the surface.

\*\* In the case of roughness heights > 1.5 mm we recommend levelling out problem areas with Wecryl 123 K.

## Wecryl Surface Protection System OS 11a

### Application rates and curing times (continued)

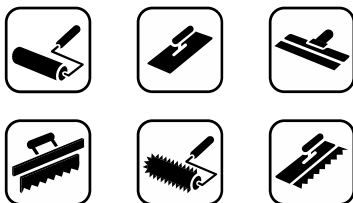
<b>Waterproofing layer</b>		Waterproofing of details	
Wecryl R 230		At least 2.50 kg/m <sup>2</sup>	
WeFleece		Approx. 1.05 m <sup>2</sup> /m <sup>2</sup>	
<b>Principally effective surface protection layer</b>		Waterproofing of details	Waterproofing of main area (PESPL)
Wecryl 271			At least 2.5 kg/m <sup>2</sup>
Wecryl 279 (without embedded fleece)			At least 2.8 kg/m <sup>2</sup>
Wecryl 279 (with embedded fleece)			At least 2.7 kg/m <sup>2</sup>
WeFleece			Approx. 1.05 m <sup>2</sup> /m <sup>2</sup>
<b>Protective layer/wearing layer</b>		On top of the main area waterproofing	
Wecryl 333 (topping layer)		At least 4.0 kg/m <sup>2</sup>	
Wecryl 407 (top sealer)		At least 0.8 kg/m <sup>2</sup>	

\*Waterproofing of all details (e.g. wall junctions, joints) uses fleece-reinforced waterproofing with WestWood Wecryl R 230 thix, including WeFleece.

<b>Product</b>	<b>Curing time (approx. values at 20°C)</b>			
	<b>Pot life</b>	<b>Rain-proof</b>	<b>Overlayable</b>	<b>Fully cured</b>
Wecryl 171	10 min	30 min	30 min	2 hours
Wecryl 178	10 min	30 min	30 min	2 hours
Wecryl 123 K	12 min	30 min	60 min	3 hours
Wecryl 271	15 min	30 min	1 hours	3 hours
Wecryl 279	15 min	45 min	1.5 hours	3 hours
Wecryl 333	15 min	30 min	1 hours	3 hours
Wecryl 407	15 min	45 min	60 min	3 hours
Wecryl R 230 thix	15 min	30 min	1 hours	3 hours

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### Application tools



Product	Application tool
Wecryl 171	Sheepskin roller
Wecryl 178	Sheepskin roller
Wecryl 123 K	Smoothing trowel, smoothing spatula or rubber floor squeegee (be sure to apply an adequate amount)
Wecryl 271	Coating trowel with triangular teeth (notch pattern 78) and metal spiked roller
Wecryl 279	<p>Application without fleece (single layer): Notched rubber squeegee (12 mm), then spiked metal roller</p> <p>Application with WeFleece (wet-on-wet): 1st layer: sheepskin roller or notched rubber squeegee (5 mm), fleece reinforcement 2nd layer: sheepskin roller</p> <p>Application without fleece (layer by layer): 1st layer: notched rubber squeegee (6 mm), then spiked metal roller 2nd layer: notched rubber squeegee (6 mm), then spiked metal roller</p>
Wecryl 333	Coating trowel with triangular teeth (notch pattern 78)
Wecryl 407	Hard rubber squeegee or ordinary rubber squeegee (top sealing)
Wecryl R 230 thix	Sheepskin roller

### Substrate preparation and primer selection

Correct substrate preparation and a proper primer layer are essential to ensure the functional durability of the WestWood system. The roughness height of the surface must be determined using the sand patch method, and the resulting values for additional layer thickness must be complied with (see the DafStb guideline (2001 edition), "Part 3, Section 3.2.5 - Determination of roughness height" and Table 5.2). The primer layer then applied creates an ideal barrier and enables optimal adhesion between the substrate and the WestWood system. Please refer to the Application Guidelines – Substrate for correct substrate preparation and selection of the right primer.

### Primer layer

Small air bubbles (pinholes) can be closed or prevented by applying the substrate stabiliser Wecryl 821 to the entire surface. The primer is applied to the prepared substrate.

#### Wecryl 171 – low-viscosity primer for mineral substrates

#### Wecryl 178 – primer for absorbent, damp substrates

Apply the primer evenly with a sheepskin roller to produce a continuous film. Avoid creating puddles of primer.

Once the primer has cured, apply a second coat to cover any defects (bubbles, areas not fully covered).

### Levelling

Wecryl 123 K is used as a scratch coat and levelling coat.

Once the primer has hardened use Wecryl 885, Wecryl 810 or Wecryl 842 to level out any areas of damage, height differences or negative slopes.

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Please refer to the application guidelines for the substrate. Concrete repair in structurally significant areas (horizontal only) should be done with Wecryl 885.

### Waterproofing layer

The primer and levelling layers must have hardened before the waterproofing layer can be applied.  
The first stage involves waterproofing details (e.g. wall junctions, penetrations) and expansion joints. The waterproofing is then applied to the main surface area.

### Waterproofing of details

#### Wecryl R 230 thix

Apply a generous and even layer of the mixed material to cover the entire area (at least 1.5 kg/m<sup>2</sup>), then immediately embed the WeFleece and use a sheepskin roller to remove any air bubbles. Immediately afterwards apply the remaining material (wet-on-wet, at least 1.0 kg/m<sup>2</sup>) up to the required total application rate (at least 2.5 kg/m<sup>2</sup>).

In each case a sheepskin roller is used to spread the material over the surface.

Fleece overlaps must be at least 5 cm wide.

Please refer to our drawings and computer animations for further information about waterproofing details (e.g. cutting the fleece sheet to size).

### Expansion joint waterproofing

Please refer to the "Detail interfaces" brochure for waterproofing different types of joints.

### Waterproofing of main area

#### Variant 1:

without embedded fleece

#### Wecryl 271 – principally effective surface protection layer (PESPL)

Apply a generous and even waterproofing layer of the mixed material to cover the entire area (at least 2.5 kg/m<sup>2</sup>), distribute with a coating trowel with notched blade (no. 78) and then go over the surface with a spiked steel roller.

### Waterproofing of main area

#### Variant 2:

without embedded fleece

#### Wecryl 279 – waterproofing without fleece reinforcement

Apply a generous and even waterproofing layer of the mixed material over the entire surface (at least 2.8 kg/m<sup>2</sup>) with a 12-mm-notched rubber squeegee and then immediately go over the surface with a spiked metal roller.

### Waterproofing of main area

#### Variant 3:

with embedded fleece

#### Wecryl 279 - waterproofing with fleece reinforcement

Use a sheepskin roller or 5-mm-notched rubber squeegee to apply a generous and even layer of the mixed material to cover the entire area (at least 1.3 kg/m<sup>2</sup>), then immediately embed the WeFleece. Immediately afterwards, apply the remaining material (wet-on-wet, at least 1.4 kg/m<sup>2</sup>) up to the required application rate (total application at least 2.7 kg/m<sup>2</sup>). A sheepskin roller or notched rubber squeegee (5 mm) can be used to distribute the first layer. A sheepskin roller must be used for application of the second layer. Fleece overlaps must be at least 5 cm wide.



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### Protective layer/wearing layer

#### **Wecryl 333 – self-levelling mortar with WestWood Quartz Sand topping 0.7 - 1.2 mm and Wecryl 407**

Use a coating trowel with triangular teeth (notch pattern 78) to apply an even layer of the mixed self-levelling mortar (approx. 4.0 kg/m<sup>2</sup>) to the hardened waterproofing for the main surface area. Top the newly applied self-levelling mortar with WestWood Quartz Sand 0.7 - 1.2 in excess (approx. 7.0 kg/m<sup>2</sup>). Once the self-levelling mortar is fully cured, use a broom to sweep off the excess quartz sand, making sure that no loose grains remain on the surface. Finally, use a hard rubber squeegee or an ordinary rubber squeegee (top sealing) to apply an even layer of Wecryl 407 Finish (approx. 800 g/m<sup>2</sup>).

### Design options

WestWood systems offer excellent scope for creative designs. Wecryl 407 can be used to create surfaces in one or more colours. The products also allow any pattern or markings to be incorporated.

### Cleaning the tools

If work is interrupted or when it is completed, clean the tools thoroughly with WestWood Cleaning Agent within the pot life of the material (approx. 10 minutes). This can be done with a brush. The tools are ready to be used again as soon as the cleaning agent has evaporated fully. Simply immersing the tools in the cleaning agent will not prevent the material from hardening.

### Information on safety and risks

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

### General information

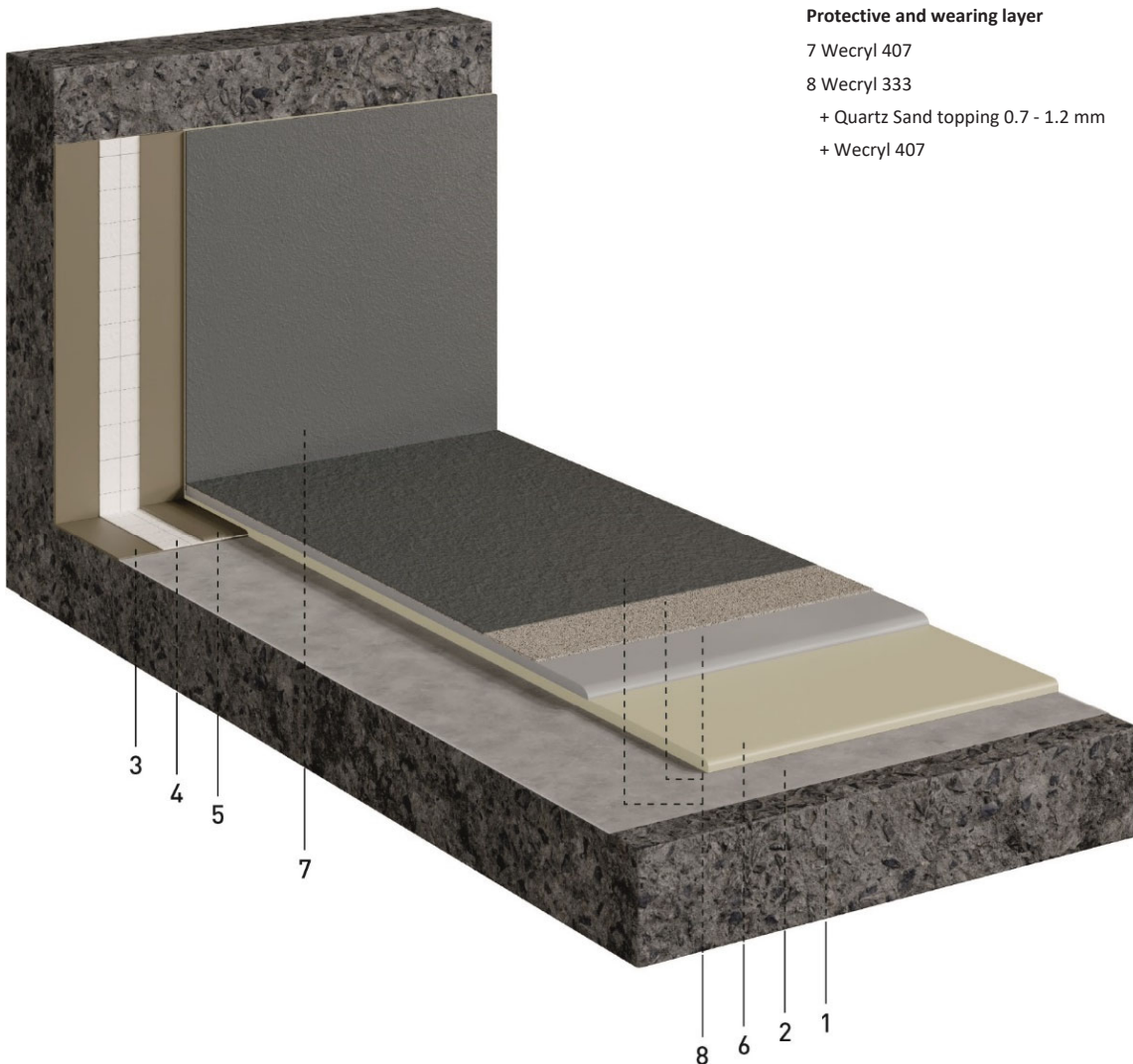
The preceding information, especially with regard to the application of the products, is based on extensive development work and many years of experience and is provided as the best of our knowledge. However, the wide variety of requirements and conditions on site mean it is necessary for the installer to test the product to verify its suitability for the intended purpose. Only the most recent version of this document is valid. We reserve the right to make changes to reflect advances in technology or improvements to our products.

### Appendix

System drawing

Last revised: 01 March 2025

## Wecryl Surface Protection System OS 11a



**Substrate**

1 Concrete, for example

**Primer layer**

2 Wecryl 171| 178

**Waterproofing layer**

(Waterproofing layer [PESPL] according to DAFStb guideline "Protection and repair of concrete components")

**Waterproofing of details**

3 Wecryl R 230 /-thix

4 WeFleece

5 Wecryl R 230 /-thix

**Waterproofing of main area**

**(PESPL)**

6 Wecryl 271| 279

**Protective and wearing layer**

7 Wecryl 407

8 Wecryl 333

+ Quartz Sand topping 0.7 - 1.2 mm

+ Wecryl 407