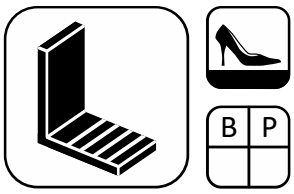
Installation guideline

Wecryl High-Build System



Brief description

The Wecryl High-build Hystem combines a flexibilised (hairline-crack-bridging) and waterproofing coating with a highly flexible and fleece-reinforced waterproofing material for details and joints. Applied in conjunction with heavy-duty and abrasion-resistant protective and wearing layers, it is suitable for all areas susceptible to hairline cracking and subject to heavy vehicle and pedestrian traffic.
The surface design can feature any colour as well as patterns or markings. The fact that this system, with its high bonding strength on almost any substrate, is applied as a liquid kit makes it a cost-efficient and high-quality solution, especially for the refurbishment of multi-storey car parks, balconies and access galleries.

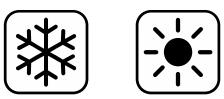
Properties and advantages

- Flexible, waterproofing and hairline-crack-bridging coating layer
- Able to withstand high mechanical stress (e.g though heavy vehicle and pedestrian traffic)
- Highly flexible and fleece-reinforced waterproofing for details and joints – CE certified in accordance with ETAG 005 at the highest possible performance levels
- Approved balcony surfacing acc. to DIN 18531-5 (OS 8, Appendix A)
- Flame resistant type (C_{fl} – s1 in accordance with EN 13501-1) available
- 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
- Can be applied all year round
- Unlimited design options (colour finish, tiled look, road markings etc.)
- Easy and fast application
- Solvent-free

Applications

- Ideal for multi-storey car parks and balconies, access galleries and stairs, also due to the adjustable non-slip properties
- Crack-free surfaces and Areas susceptible to cracking that are subject to high mechanical stress
- Pedestrian and vehicle traffic
- For visually appealing design options

Application conditions



Temperatures

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

Product	Temperature range, in °C		
Primer layer	Air	Substrate*	Material
Wecryl 110	-5 to +35	-5 to +50*	+3 to +30
Wecryl 178	+3 to +35	+3 to +50*	+3 to +30
Wecryl 176 /176 K	+3 to +35	+3 to +50*	+3 to +30
WMP 113	+3 to +35	+3 to +50*	+3 to +30

WMP 174 S	+3 to +35	+3 to +35*	+3 to +30

Product	**Temperature range, in °C**		
Waterproofing layer	**Air**	**Substrate***	**Material**
Wecryl R 230 /-thix	-5 to +35	+3 to +50*	+3 to +30
Wecryl R 230 TT	-15 to +25	-10 to +30*	+3 to +20
Protective layer			
Wecryl 333 /-thix 10 /-thix 20 / Wecryl 337	+3 to +35	+3 to +50*	+3 to +30
Wecryl 333 Wi	-5 to +25	-5 to +30*	+3 to +20
Wearing layer			
Wecryl 488/ 489	-5 to +35	+3 to +40*	+3 to +30
Wecryl 410	-10 to +35	-5 to +40*	+3 to +30
Wecryl 420	-10 to +35	-5 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. Reaction problems can occur at lower temperatures.

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.

Consumption and reaction times

Product	**Consumption [kg/m²]**		
Primer layer	Substrate smooth	fine-sandy	coarse
Wecryl 110	approx. 0.5	approx. 0.6	approx. 0.7
Wecryl 178	approx. 0.4	approx. 0.5	approx. 0.8
Wecryl 176	approx. 0.4	approx. 0.5	approx. 0.8
Wecryl 176 K	approx. 0.8	approx. 0.9	approx. 1.0
WMP 113	approx. 0.18	-	-
WMP 174 S	approx. 0.1 l/m²		
Waterproofing layer	For waterproofing of details only		
Wecryl R 230 /-thix/HT	min. 3.0		
Wecryl R 230 TT	min. 3.0		
WeVlies	1.00 rm/m		
Protective layer	As coating of main area		
Wecryl 333 /-thix 10 /-thix 20 /-Wi / Wecryl 337	approx. 4.0		
Wearing layer	**Consumption [kg/m²]**		
WestWood Chips	up to max. 0.05		
Wecryl 410	approx. 3.5		
Wecryl 420	approx. 1.5		

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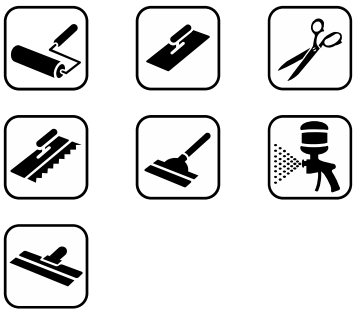
	Substrate smooth	Sanded	
Wecryl 488	approx. 0.6	approx. 0.6 - 0.8	
Wecryl 489	approx. 0.7	approx. 0.8 - 0.9	

Product	**Drying time** (temperature-dependent)			
	30 °C	**20 °C**	**10 °C**	**+3 °C**
WMP 113	min. 1 h	min. 2 h	min. 3 h	min. 4 h
WMP 174 S	min. 20 min	min. 30 min	min. 40 min	min. 45 min

Product	**Reaction time** (approx. values at 20 °C)			
	Pot life	**Rainproof**	**Overlayable**	**Curing time**
Wecryl 110	12 min	30 min	45 min	3 hours
Wecryl 178	10 min	30 min	30 min	2 hours
Wecryl 176	10 min	30 min	30 min	2 hours
Wecryl 176 K	10 min	30 min	30 min	2 hours
Wecryl R 230 /-thix/HT	15 min	30 min	1 hour	3 hours
Wecryl R 230 TT (at 3°C)	20 min	45 min	75 min	6 h min.
Wecryl 333 /-thix 10 /-thix 20 / Wecryl 337	15 min	30 min	1 hour	3 hours
Wecryl 333 Wi	20 min	45 min	75 min	6 hours
Wecryl 488 / 489	15 min	45 min	1 hour	3 hours
Wecryl 410	10 min	30 min	45 min	2 hours
Wecryl 420	10 min	30 min	45 min	2 hours

Application tools



Product	**Application tool**
Wecryl 110	Sheepskin roller
Wecryl 178	Sheepskin roller
Wecryl 176	Sheepskin roller
Wecryl 176 K	Smoothing trowel
WMP 113	Finish roller
Wecryl R 230 /-thix /-TT	Sheepskin roller
WeVlies	Scissors
Wecryl 333 /-thix 10 /-thix 20 /-Wi / Wecryl 337	Coating trowel with triangular teeth (notch pattern 92) or smoothing trowel
Wecryl 488 / 489	Finish roller or hard rubber blade (for topped surfaces)
WestWood Chips	hopper gun
Wecryl 410	Aluminium blade approx. 60 cm or Smoothing trowel
Wecryl 420	Aluminium blade approx. 60 cm or Smoothing trowel Sheepskin roller

Substrate preparation and primer selection

Correct substrate preparation and a flawless primer coating are essential for ensuring the functional durability of the WestWood System.
Generally, the substrate must be sound, dry, and free from loose and adhesion-reducing particles. That is why coats of paint, cement slurry, dirt and grease, for instance, must always be removed completely. As a rule, this is done by shot blasting, scarifying or grinding and then vacuuming off the debris.

The primer coating then applied creates an ideal barrier and enables optimum adhesion between the substrate and the WestWood System.

Please refer to the Application Guidelines - Substrate for the correct substrate preparation and primer selection.

Primer layer

The primer is applied to the prepared substrate.

Avoid small air bubbles (pin holes) can be closed or prevented by an application of substrate stabiliser Wecryl 821 to the entire area.

Wecryl 110 – Primer for asphalt
Wecryl 178 – Primer for damp substrates
Wecryl 176 – Primer for absorbent substrates
Use the sheepskin roller to apply an even film-forming coat of primer. Avoid creating puddles of primer.
Once the coating has cured, apply a second coat to cover any defects (bubbles, areas not fully coated).

Wecryl 176K – Primer / Scratch-coat for highly absorbent mineral substrates
Apply an even and film-forming coat of primer with the smoothing trowel, using the particle size as a guide to the thickness of the layer. Any build-up of material should be avoided.

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

WMP 113 / WMP 174 S – Primer for metal
Use a finish roller or a spray can to apply an even coat of the primer to the substrate.
Always avoid any build-up of material and if necessary, use a brush to spread this out (especially in corners).

Levelling

Once the primer has hardened use Wecryl 810, Wecryl 333, Wecryl 337 or Wecryl 842 to level any cavities, height differences, broken and removed tiles or negative slopes. Please refer to the application guidelines for the substrate. Use Wecryl 846 for concrete repairs in in structural applications (horizontal only).

Waterproofing layer

Once the primer and equalising layers have hardened, the details (e.g. upstands, penetrations) and expansion joints are coated first before the waterproofing is applied to the main area.

Waterproofing of details

Wecryl R 230 /-thix /HT /-TT – Waterproofing
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 WeVlies and use a sheepskin roller to remove any air bubbles. Apply the remaining material directly (wet in wet) up to the required consumption rate.

In each case a sheepskin roller is used to spread the material over the surface.
Fleece overlaps must be installed with at least 5 cm overlap.

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

Waterproofing expansion joints

Wecryl R 230 /-thix /-TT – Waterproofing
If existing expansion joints have to be waterproofed, apply a joint tape along the centre of the joint and then two layers of waterproofing with fleece reinforcement. Do not apply any protective or wearing layer to the area above the joint tape. For further information please refer to the application guidelines for the Wecryl joint waterproofing system and our related drawings.

Protective layer

Wecryl 333 /-thix 10 /-thix 20 /-Wi or Wecryl 337 – Self-levelling mortar
Use a notched or smoothing trowel to apply an even layer (approx. 4.0 kg/m²) of mixed self-levelling mortar once previously applied products have hardened.
Extend the waterproofing for the main area to cover the horizontal areas of the waterproofed details, thereby protecting the waterproofing system from mechanical damage.

Wearing layer

Depending on the particular requirements, apply either Wecryl Finish 488 topped with chips or quartz sand, or Wecryl 410 or Wecryl 420 as a wearing layer.
Please note: Wecryl 488 is substituted with Wecryl 489 for the installation of the flame-resistant types. The product is applied in the same way.

Wecryl 488 (Wecryl 489) – Finish + WestWood Chips – Decorative topping (slip resistance up to R 10)
This build-up creates areas with sufficient slip resistance for domestic use that are also easy to clean using common domestic products.
Use the finish roller to apply an even layer of the mixed material (Wecryl 488 approx. 0.6 kg/m². Wecryl 489 approx. 0.7 kg/m²) to the hardened self-levelling mortar. Avoid fluctuating layer thicknesses. Immediately afterwards use a hopper spray gun to apply WestWood Chips to the liquid Finish. Depending on the desired surface design, the coloured chips can first be mixed and a greater or lesser amount applied. However, applying an excess quantity should be avoided, i.e. when applied, the chips should not form a continuous coating at any point.

Wecryl 488 (Wecryl 489) – Finish + WestWood Quartz sand
(Slip resistance up to R 12)
A quartz sand topping sealed with Finish offers greater slip resistance with increased roughness height and is used predominantly for escape routes in residential and commercial buildings as well as in multi-storey car parks.

The quartz sand is sprinkled onto the protective layer (self-levelling mortar) while this is still wet. Once the self-levelling mortar has hardened, any loose sand is vacuumed off and a finish roller used to seal the entire area with a final coating of finish.
For an enhanced appearance a hard rubber blade can also be used to apply the Finish before laying off with a finish roller.
Depending on the grain size of the topping, the consumption rate for the finish is:
Wecryl 488 approx. 0.60 to 0.80 kg/m²
Wecryl 489 approx. 0.80 to 0.90 kg/m²

Wecryl 410 - Textured surfacing
(slip resistance: normal R 12, abraded R 13)
Its superior resistance to mechanical stress and excellent anti-skid properties make this product the optimum surfacing for ramps and traffic lanes in parking structures.

An aluminium blade or smoothing trowel is used to spread the mixed product evenly over the hardened self-levelling mortar and lay off to particle size thickness.
If necessary, the cured surfacing may also be abraded. This makes it easier to clean, while still retaining a high level of skid resistance. This version is used especially for escape and emergency routes.

Wecryl 420 – Roll surfacing
(Slip resistance R 11)
An aluminium blade or smoothing trowel is used to spread the mixed product evenly over the hardened self-levelling mortar and lay off to particle size thickness.
To achieve the desired finish, go over the area with a sheepskin roller.

Design options

WestWood systems offer excellent scope for creative designs. Wecryl 488/Wecryl 489 or Wecryl 410/Wecryl 420 can be used to create surfaces in one or more colours. The products also allow any pattern or markings to be incorporated. In conjunction with topping materials, the Finish offers many additional design options.

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 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 product to be tested 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.

Appendix

System drawing

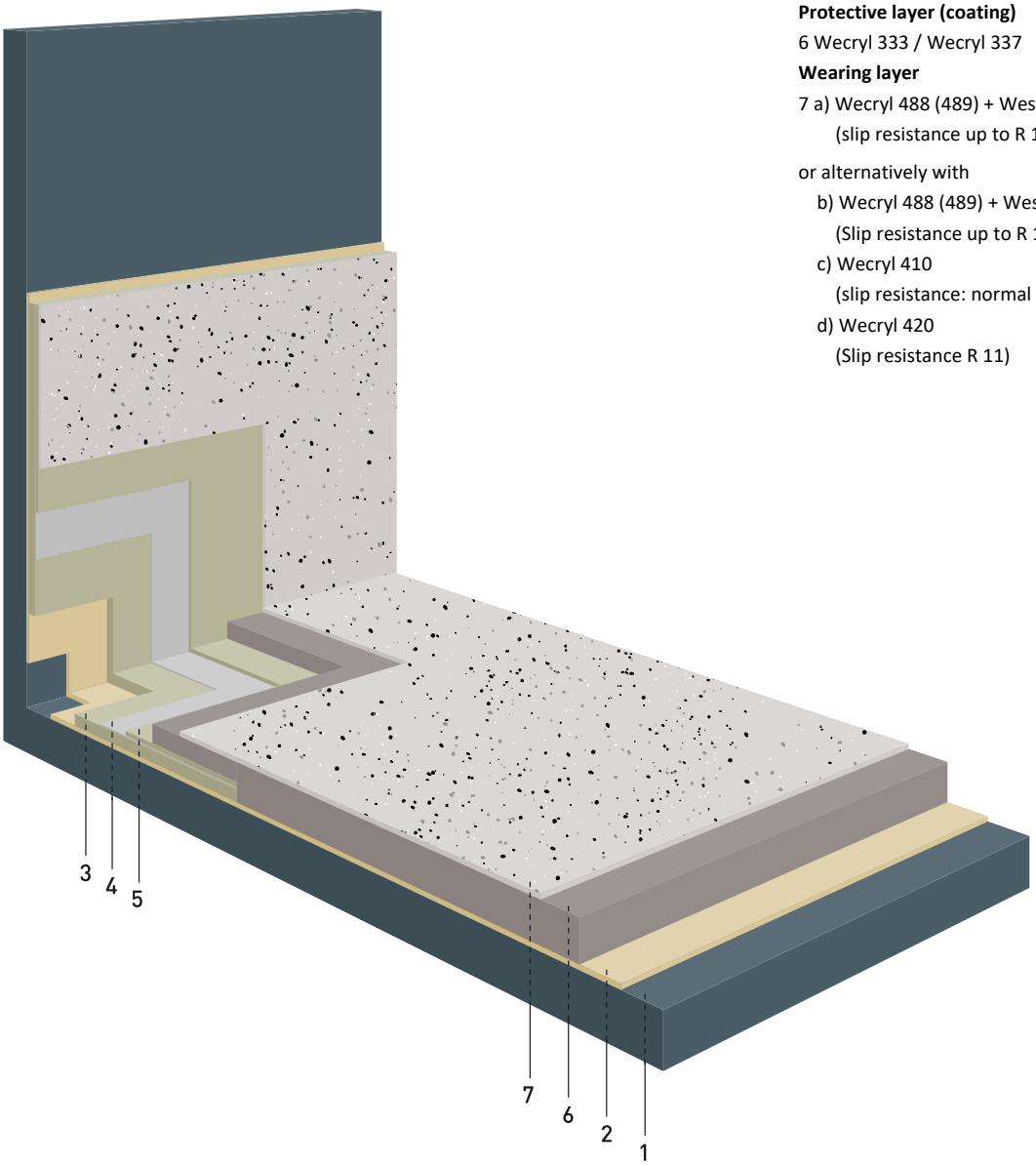
Rev.: 01 February 2022

System drawing

Wecryl High-Build System

Substrate
1 e.g. concrete, mechanically pre-treated
Primer layer
2 e.g. Wecryl 176
Waterproofing layer
Waterproofing of details
3 Wecryl R 230 thix /TT/HT
4 WeVlies
5 Wecryl R 230 thix /TT/HT
Protective layer (coating)
6 Wecryl 333 / Wecryl 337
Wearing layer
7 a) Wecryl 488 (489) + WestWood Chips
(slip resistance up to R 10)

or alternatively with
b) Wecryl 488 (489) + WestWood Quartz sand
(Slip resistance up to R 12)
c) Wecryl 410
(slip resistance: normal R 12, abraded R 13)
d) Wecryl 420
(Slip resistance R 11)



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