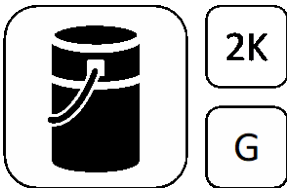
Product information sheet

Wecryl 123 - Green
Primer or Sealer / Finish in acc. with TL/TP-BEL-EP and H PMMA



Brief description

Wecryl 123 is a fast-curing, low-viscosity and solvent-free primer for concrete. Wecryl 123 is tested on the basis of the “Technical Delivery Specifications / Technical Test Specifications for Catalyzed Resins for Primers, Sealants and Scratch Coats under Asphalt Surfacing on Concrete”, (TP-BEL-EP) and the additional H PMMA requirements and may be used for the production of waterproofing systems consisting of a welded polymer-bitumen sheet on a PMMA-based seal coat, primer or scratch coat for civil engineering structures. Wecryl 123 is approved for application to young concrete (> 7 d). The application and usability on structures and components of the Federal Transport Network is verified in the "Compilation of certified substances and substance systems according to TL-BEL-EP”, a list by the Federal Highway Research Institute (BASt).

Material

2-component, fast-curing, catalysed PMMA-based resin (PMMA = polymethyl methacrylate)

Properties and advantages

- Easy to apply
- Fast-curing
- Hydrolysis- and alkali-resistant
- Heat-resistant (welded sheeting, mastic asphalt)
- Fills pores and cracks
- Solvent-free
- Stabilises the surfaces of inferior grades of concrete
- Can be used at temperatures as low as 0 °C

Approval / Areas of application

The product can be used for new surfacing or existing surfacing that needs to be fully or partially replaced and that is applied to concrete bridge deck slabs, with welded polymer-bitumen sheeting as the waterproofing layer.

Wecryl 123 is approved and tested (test report no. 16/11057/01, Kiwa Flörsheim) in accordance with TL/TP-BEL-EP and H PMMA as well as the compatibility tests in accordance with TL/TP-BEL-B, part 1 and can therefore be applied on bridge deck surfacing on concrete with a welded polymer-bitumen sheeting as waterproofing layer.

Approved Welded polymer-bitumen sheeting:

- BÖRNER OK 50 N - Welded polymer-bitumen sheet
- VEDAPONT BE - Welded polymer-bitumen sheet

https://www.bast.de/BASt_2017/DE/Ingenieurbau/Qualitaetsbewertung/Listen/pdf/tl-bel-ep.html?nn=1815704

System build-up suitable for the concrete surface or roughness heights

The system build-up (primer or finish/sealant or scratch coat) must be selected to suit the ascertained roughness heights and the age of the concrete. At roughness heights up to 1.5 mm in the concrete surface a primer or sealer must be applied. At roughness heights > 1.5 mm a scratch coat must be applied. Individual depressions in the concrete, up to 5 mm in

depth and approx. 500 cm² in area, may also be filled with Wecryl 123 K (scratch coat).
The roughness height must be determined in accordance with ZTV-ING - part 1 General Information, section 4, "Determination of Roughness Height".

Roughness heights < 1.5 mm
Primer on concrete (age of concrete ≥ 21 days):
Wecryl 123 is used for this. The product largely fills the pores in the surface of the concrete and creates a permanent bond between the concrete and the next coating. Quartz sand is broadcast over the primer.
Wecryl 123 is poured onto the substrate at a rate of at least 500 g/m² until the surface is saturated and then spread with a sheepskin roller or rubber squeegee. Broadcasting of (kiln-dried) quartz sand 0.2 - 0.7 mm (quantity: approx. 500 - 800 g/m²) must begin while the primer is being applied. On no account must sand be applied to excess. Any sand that is not firmly incorporated in the primer after curing must be removed.

Sealer on concrete (age of concrete ≥ 14 days):
Wecryl 123 is used for this. The product fills the pores in the surface of the concrete and creates a permanent bond between the concrete and the next coating. Two coats are applied, with a topping of quartz sand in between. The second coat is not topped with quartz sand.
As a first coat, Wecryl 123 is poured onto the substrate at a rate of approx. 500 g/m² until the surface is saturated and then spread with a sheepskin roller or rubber squeegee. Broadcasting of quartz sand (kiln-dried) 0.7 - 1.2 mm in excess (grain to grain, consumption approx. 3.0 - 3.5 kg/m²) must begin while the resin is being applied. Any sand that is not firmly incorporated in the first coat of the sealant / finish after curing must be removed. The second coat of Wecryl 123 can be applied with a sheepskin roller or rubber squeegee after just 30 - 45 min. (temperature-dependent) at a quantity of at least 600 g/m².

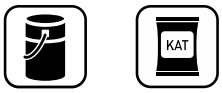
Application to concrete that is at least 7 days old:
The product is applied to concrete that is at least 7 days old as described for the build-up "Sealant / Finish on Concrete".
The surface of the concrete must be dry. To determine whether the concrete surface is dry, it must be heated locally with a hot air blower or fan. If the concrete is moist, this will make it noticeably lighter, in which case the product must not be applied.

Roughness heights > 1.5 mm
Scratch coat on concrete
This is designed to level out major roughness heights > 1.5 mm and is applied on top of the cured primer. The scratch coat (Wecryl 123 K) must be smoothed over the particle tips. Wecryl 123 K must be topped with fire-dried quartz sand 0.2 - 0.7 mm so that the same surface is achieved as when

Wecryl 123 - Green
Primer or Sealer / Finish in acc. with TL/TP-BEL-EP and H PMMA

a primer is applied. Any sand that is not firmly incorporated in the scratch coat after curing must be removed.
If scratch coat and sealer are combined side by side on one surface or if a scratch coat must be applied instead of sealer, the surface of the scratch coat has to be topped with quartz sand 0.7 – 1.2 mm in excess (grain to grain, consumption approx. 3.0 – 3.5 kg/m²).
Any sand that is not firmly incorporated in the scratch coat after curing must be removed. The Wecryl 123 K is then sealed with Wecryl 123 at a consumption rate of approx. 600 g/m².

Pack size



Summer:		Winter:	
10.00 kg	Wecryl 123	10.00 kg	Wecryl 123
0.30 kg	Wekat 900	0.60 kg	Wekat 900
10.30 kg		10.60 kg	

Summer:		Winter:	
25.00 kg	Wecryl 123	25.00 kg	Wecryl 123
0.80 kg	Wekat 900	1.60 kg	Wekat 900
25.80 kg		26.60 kg	

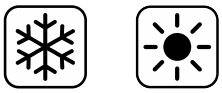
Colour

greenish

Storage

Store products sealed in their original airtight container and in a cool, dry and frost-free place. Unopened products have a shelf life of at least 6 months. Direct sunlight on the containers should be avoided, including on site. After removing 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 123	0 to + 35	0 to +30*	+3 to +30

The relative humidity must be ≤ 90%.
The surface to be coated must be dry and ice-free.
The dryness of the concrete surface has to be tested by heating a small area with a hot-air blower or fan (moist concrete will get noticeably lighter).
The surface must be protected from moisture until the coating has hardened.
It is vital that the topped primer or the first topped layer of the sealer is reworked before work is interrupted overnight. When applying the primer before interrupting work, the welded polymer-bitumen sheet must be

applied. When applying the sealer, it is vital that the second layer is applied before interrupting work.

Concrete replacement systems
Since the primer has been developed specifically for concrete, its application on concrete replacement systems must be checked in each case as problems might arise with curing.

Reaction times and required amounts of catalyst

	Wecryl 123 (at 20 °C, 1.5% catalyst)
Pot life	approx. 10 min
Rainproof	approx. 30 min
Can be walked on/ overcoated	approx. 60 min
Curing time	approx. 3 hours

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

Product	Workable life > 10 Minutes at substrate temperature Required amount of catalyst							
	0 °C	+3 °C	+5 °C	+10 °C	+15 °C	+20 °C	+25 °C	+30 °C
Wecryl 123, 10 kg bucket	6% = 600 g	6% = 600 g	4% = 400 g	3% = 300 g	3% = 300 g	1.5 % = 150 g	1% = 100 g	1% = 100 g
Wecryl 123, 25 kg bucket	6% = 1500 g	6% = 1500 g	4% = 1000 g	3% = 750 g	3% = 750 g	1.5 % = 375 g	1% = 250 g	1% = 250 g

Technical data

Density: 1.00 g/cm³
Consumption: see "**System build-up suitable for the concrete surface or roughness heights**"

Product application




Application equipment / tools
For mixing the product:
- Mixing tool with twin-paddle stirrer

For applying the product:
- Rubber squeegee (ensure adequate consumption rate), then use the sheepskin roller to smooth over.
- Brush (only for areas not accessible with roller)

Substrate preparation
The primer must only be applied to a prepared substrate. Please refer to the appropriate application guide for information about correct surface preparation.

Product information sheet

Wecryl 123 - Green
Primer or Sealer / Finish in acc. with TL/TP-BEL-EP and H PMMA

Once the substrate has been prepared, the bond strength of the concrete must be checked. The mean bond strength must be at least 1.5 N/mm². The lowest individual value must not be less than 1.0 N/mm².


Mixing
First stir the tub contents thoroughly.
Then add the catalyst while stirring the resin 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. This applies especially if you are preparing a scratch coat.

Application
Use the sheepskin roller or rubber squeegee to apply the recommended amount for an even and film-forming coat of primer. Avoid creating puddles. Once the coating has cured, apply a second coat to cover any defects (bubbles, areas not fully coated). If necessary, use a brush to make good any individual indentations. The primer coating must form a continuous film over the entire substrate before the next layers can be applied.

If an insufficient amount of material is applied, curing problems may arise due to interrupted polymerisation.

Cleaning

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. 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.

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.

Rev.: 01 February 2022