

DATASHEET

Okamul PU-FCA

Crack-bridging, chemical-resistant sealant

- high crack bridging
- solvent-free
- high chemical resistance
- with "General test certificate issued by the building authorities"
- complies with DIN 18531, DIN 18534 and DIN 18535



PRODUCT DESCRIPTION

Solvent-free, pigmented polyurethane resin made of 2 components for sealing wall and floor surfaces under natural stone and ceramic coverings, e.g. in indoor and brine baths (< 1.2 bar), commercial kitchens, laboratories, production rooms of the beverage and food industry, as well as in wet and underwater areas of residential construction. **Okamul PU-FCA Wand** is preferably used on wall surfaces and **Okamul PU-FCA Boden** on floor surfaces.

Okamul PU-FCA can be used in the following application areas:

1. Wall and floor surfaces in accordance with DIN 18534 (waterproofing of interiors) in water influence classes W0-I and W3-I (with chemical exposure)
2. Floor surfaces according to DIN 18531 Part 5 (waterproofing of balconies, loggias and arcades)
3. Wall and floor surfaces according to DIN 18535 Part 5 (waterproofing of tanks and basins), waterproofing with liquid waterproofing materials in combination with tiles and plates AIV-F

Suitable substrates, depending on the humidity protection category or water influence classes, are e.g. plasters of mortar types II + III (DIN 18 550 part 1 + 2), concrete (DIN 1045), autoclaved aerated concrete (AAC) building units (DIN 4166), light-weight concrete walls (DIN 18 148) or cement-, poured mastic asphalt- and calcium sulphate screeds (DIN 18 560).

Okamul PU-FCA Wand is visco-elastic with high crack bridging properties and resistant to diluted chemicals and salt solutions. For a controllable system build-up, **Okamul PU-FCA** is supplied in 2 colour shades.

In product combination with the adhesive mortars listed below, a "General Building Inspection Test certificate" of the Materialprüfanstalt für das Bauwesen TU Braunschweig is available:

Okapox royal (Boden) / Servoflex K-Plus SuperTec

Kiesel Bauchemie GmbH u. Co. KG
Wolf-Hirth-Straße 2
D-73730 Esslingen
Phone: 0711 93134-0
Fax: 0711 93134-140
www.kiesel.com
Stuttgart District Court HRA 210806

CEO:
Beatrice Kiesel-Luik
Dirk Schulze

Personally liable partner::
Kiesel Verwaltungsges. mbH
Stuttgart District Court HRB 210484
Registered Office of the company:
73730 Esslingen

SUBSTRATE PREPARATION

The substrate must be inspected and ready for installation in accordance with the respective regulations of the individual countries as well as the current state of technology. Substrates must be pre-treated in accordance with the current BEB datasheet ('Evaluation and Preparation of Substrates').

The substrate must be dry, clean, load-bearing and protected from the effects of moisture on the reverse side. Remove impurities or separating layers depending on the nature of the substrate by suitable methods such as grinding, brushing or blasting (vacuum concrete shot blasting). Concrete substrates in underwater areas must be roughened mechanically to improve adhesion, e.g. by sandblasting.

Any unevenness must be levelled out beforehand.

Cement-bound surfaces must also meet the following criteria:

Underground	Quality	Residual moisture
Screed:	at least CT C25 F4	≤ 2 %
Plaster:	Mortar group PIIa/PIIb	
Concrete:	Age: at least 28 days	

Container must be exposed to the loads to be expected later before the waterproofing and surfacing work and must, therefore, be filled with water as a test. This helps to avoid deformations that occur later with negative effects on the lining.

Prime suitable substrates with Okapox GF according to the technical data sheet

Concrete: Age of concrete must be at least 28 days. Adhesive tensile strength > 5 N/mm² and Adhesive tensile strength > 0.2-0.7 mm (approx. 0.307 lbs/ft² / 1.5 kg/m²) over the entire surface. When fresh, sprinkle fire-dried quartz sand with grain size 0.2-0.7 mm.

PROCESSING

Add the hardener liquid (comp. B) completely to the base material (comp. A). Mix the two components intensively with an electric mixer until a homogeneous, streak-free mass is obtained (stir for approx. 3 min, at +15°C). **Then re-fill in a clean container and mix again thoroughly until homogeneous.**

For a connection to floor surfaces, bond **Kiesel Dichtband 180** to the scattered, hardened primer with **Okamul PU-FCA Wand** before surface sealing and then completely overcoat in the course of surface sealing. Also seal plastic or metal sealing flanges before sealing the surface using the **Dichtmanschette "Boden"**, pipe passages using the **"Dichtmanschette "Wand"** as well as **Innen-** and **Außenecken** using the **Dichtecken außen** and **Dichtecken innen** with **Okamul PU-FCA Wand**. Joints must be overlapped by at least 5 cm.

For sealing with **Okamul PU-FCA** using the 1st colour shade, apply a non-porous base coat. Consumption: min. 0.287 lbs/ft² (1.4 kg/m²). After curing (approx. 16 hours), apply the top coat in the 2nd colour shade. Pre-fill with a thin layer of paint and remove with a uniform thickness. Consumption: min. 0.123 to 0.164 lbs/ft² (0.6 kg/m² to 0.8 kg/m²).

Sprinkle the fresh top coat with quartz sand 0.2-0.7 mm (approx. 0.307 lbs/ft² / 1.5 kg/m²) over the entire surface. The surplus should be carefully removed after curing before laying ceramic coverings.

Connection to pipe passages:

Degrease, sand and prime sealing flanges or pipes made of metal and PVC with **Okapox GF-M** or **Okapox GF** in one work step. Then sprinkle with 0.2-0.7 mm quartz sand.

Consumption: **Okapox GF** approx. 0.041 lbs/ft² (200 g/m²)

Please note:

Protect the processed surface against moisture and contamination, as otherwise the curing and adhesion of the individual layers may be disturbed. The substrate temperature must be at least 3°C above the dew point. After long interruptions between the application of coats and in case of re-coating work, thoroughly clean and sand the old surface. Then apply a complete new coating.

Only use epoxy resin adhesive and grout for laying and grouting when exposed to chemicals.

SPECIFICATIONS

Color	grey, blue
Application	indoors, on walls and floors
Density	floor 1.37 kg/dm ³ , wall 1.32 kg/dm ³
Crack-bridging properties	> 0,4 mm
Fire performance class	B2
Application temperature	+ 10 °C to + 25 °C (50 °F to 77 °F)(substrate), material approx. 15 °C < 65% rel. humidity
Temperature resistance	- 20 °C to + 60 °C (-4 °F to 140 °F)
Mixing ratio	wall: 100 parts by weight comp. A / 23 parts by weight comp. B floor: 100 parts by weight comp. A / 24 parts by weight comp. B
Quartz sand	approx. 0.31 lbs/ft ² (1.5 kg/m ²)(grain size 0.2 - 0.7 mm) or granite sand 0.2 - 0.6 mm
Processing time*	approx. 45 minutes
Walkable* / ready for installation*	after approx. 16 hours to max. 24 hours
Chemical resistance*	after approx. 7 days
Mechanical resistance *	after approx. 7 days
GISCODE	PU 40
EMICODE	EC1 ^{Plus}
Storage	Store in a dry place, can be stored for approx. 6 months in closed original containers favourable storage temperature: 50 °F to 68 °F (+10°C to +20°C) ** Observe EC safety data sheet

** At 73 °F (+23 °C) with 50 % relative humidity.

Higher temperature and low humidity decreases, lower temperature and high humidity increases this value respectively.

** Stored **Okamul PU-FCA** may crystallise with frequent temperature changes. Heat the material for approx. 2 hours in a water bath

to + 50 °C to + 60 °C to eliminate crystallisation. Do not use crystallised component B (hardener component) any more.

IMPORTANT NOTICE

Component B contains polymeric diphenylmethane diisocyanate ((P-MDI). Harmful when inhaled, may cause sensitisation by skin contact. Ventilate well and wear protective gloves and goggles when working. In case of skin contact, rinse immediately with soap and water. In case of eye contact, rinse immediately with water and consult a doctor.

Observe data sheet M 044 "Merkblatt über den Umgang mit Polyurethananstrichstoffen" issued by the "Berufsgenossenschaft der chemischen Industrie" and the safety data sheet.

For your attention: From 24 August 2023, appropriate training must be provided prior to industrial or commercial use.

Processing advice:

After mixing the two components, it is imperative to transfer the container to a clean vessel and mix again thoroughly until homogeneous.

COVERAGE

Consumption* on smooth substrates, minimum dry film thickness $\geq 1,0$ mm.

Consumption* base coat: at least 0.287 lbs/ft² (1.4 kg/m²)

Coverage* base coat per * 8 kg tin double container: approx. 61.5 ft²

Consumption* top coat: at least 0.082 - 0.123 lbs/ft² (0.4 - 0.6 kg/m²)

Coverage* top coat per * 8 kg tin double container: approx. 215 - 143.5 ft²

*Coverage is approximate and is given for estimating purposes only. It may vary according to substrate conditions and other factors.

A layer thickness allowance should take into account the substrate conditions (rough/porous) and variations due to processing. The required minimum dry film thickness is to be ensured by a thickness addition of at least 25 %.

CLEANING

Clean tools immediately with acetone or **Bakit RT** cleaning cloth. Residues can only be removed mechanically by scraping.

PACKAGING

Product description	Item no.	Item no.
Okamul PU-FCA-Wand 42 x 17.6 lbs (8 kg) tin double container	60200 grau	4015705602004
Okamul PU-FCA-Wand 42 x 17.6 lbs (8 kg) tin double container	60201 blau	4015705602011
Okamul PU-FCA-Boden 42 x 17.6 lbs (8 kg) tin double container	60202 grau	4015705602028

Kiesel Bauchemie GmbH u. Co. KG
 Wolf-Hirth-Straße 2
 D-73730 Esslingen
 Phone: 0711 93134-0
 Fax: 0711 93134-140
 www.kiesel.com
 Stuttgart District Court HRA 210806

CEO:
 Beatrice Kiesel-Luik
 Dirk Schulze

Personally liable partner::
 Kiesel Verwaltungsges. mbH
 Stuttgart District Court HRB 210484
 Registered Office of the company:
 73730 Esslingen

Okamul PU-FCA-Boden 42 x 17.6 lbs (8 kg) tin double container	60203 blau	4015705602035
---	------------	---------------

SAFETY NOTICE

Please observe the precautions that apply to the handling of chemicals. For more information, see the safety data sheet.

The aforementioned information, especially the proposals for processing and utilizing our product, is based on our knowledge and experience. We recommend that you carry out your own tests in every case to ensure the suitability of our products for the intended process and processing purposes because of the different materials and the working conditions which lie beyond our area of influence. No liability can be derived from this advice or from verbal advice, unless we are responsible for (criminal) intent or gross negligence in this respect.

Revised: 30.01.2023/ag