

# General Construction Product Test Certificate

Test certificate No.

**P 10727 / 17-486-E**

Subject:

**WIDOCRYL-Detail**

Intended use:

**Waterproofing** to be used on surfaces that are inclined by up to 90° in accordance with Building Rules List A Part 2 seq. no. 2.51

Applicant:

**Widopan Produkte GmbH**  
**Ostereichen 3**  
**21714 Hammah**

Date of issue:

**18.08.2017**

Period of validity:

**17.08.2022**

Due to this general building authority test certificate the building product mentioned above is useable in accordance with the state regulations for buildings.

This general building authority test certificate comprises 11 pages, including  
1 appendix of 4 pages

## 1 SUBJECT AND FIELD OF APPLICATION

### 1.1 Subject

This general building inspectorate test certificate applies to the manufacture and use of building sealing with liquid plastics with the product designation *WIDOCRYL-Detail* of WIDOPAN Produkte GmbH as surface sealing in accordance with Building Rules List A Part 2, current no. 2.51.

### 1.2 Scope

The product *WIDOCRYL-Detail* may be used as structural sealing for surfaces inclined up to 90° for the following load cases:

1. The sealing of soil-contacting floor slabs and outer wall surfaces against soil moisture (capillary water, holding water) and non-accumulating seepage water
2. The sealing of earth-covered ceiling surfaces against non-pressing water
3. The sealing of used indoor and outdoor areas against non-pressing water
4. The sealing of soil-contacting floor slabs and outer wall surfaces against accumulating seepage water and pressing water up to 3 m water column
5. The sealing of containers against water pressing from inside (swimming pools, water tanks, water storage tanks) indoors and outdoors up to a filling height of 10 m (filling water with drinking water properties)

## 2 REGULATIONS FOR THE BUILDING PRODUCT

### 2.1 Composition, characteristic values and properties

#### 2.1.1 Composition

The product *WIDOCRYL-Detail* belongs to the group of *reaction resins based on urethane modified methyl methacrylate resin*.

The following components belong to the sealing system:

Location/Layer	System component
Priming	WIDOCRYL concrete primer PM
Sprinkling	Quartz sand (0.3 - 0.8) mm
Sealing	WIDOCRYL Detail with reinforcing insert WIDOPAN polyester mesh fleece G165

### 2.1.2 Properties

The structural sealing made of *WIDOCRYL-Detail* is sufficient for the mentioned applications:

- Stable when applied on surfaces inclined by up to 90°
- Alkali-resistant
- Sufficient tensile bond strength ( $\geq 0.5$  N/mm<sup>2</sup>) on mineral substrate (identify substrate)
- Crack-bridging for cracks occurring in the substrate of up to 2.0 mm
- Sufficient resistance to perforation
- Resistant to rain after 8 h

The built-in construction product is classified in class B<sub>Roof</sub> (tl) according to EN 13501-5. The proof has been provided by the classification test report no. 230006805-3 dated 12.09.2016 from the Materials Testing Office North Rhine-Westphalia.

The proof of usability was provided by tests according to the test principles for liquid plastics (PG-FLK) with the test report no. P 10727 dated 16.08.2017 of the Polymer Institute.

### 2.1.3 Characteristic values

The characteristic values of the product or of the product components of the liquid plastic *WIDOCRYL-Detail* are listed in the appendix.

The characteristic values serve as reference values for the certificate of conformity.

## 2.2 Production, packing, transport, storage and identification

### 2.2.1 Production

The construction product or the product components are produced at the factory.

### 2.2.2 Packaging, transport, storage

The requirements of other legal areas noted on the containers, such as dangerous goods transport law or hazardous substances law, must be observed.

The construction product should be stored in closed containers dry and frost-free. With regard to the minimum storage period, the manufacturer's instructions must be observed.

### 2.2.3 Labelling of the product and components

The product must be labelled as follows:

- Product name
- Conformity mark according to ÜZVO (s. Section 4)
- Manufacturing date, if applicable, expiry date
- Fire behaviour, class B<sub>Roof</sub> (t1) according to EN 13501-5

The labelling can be made on the packaging or on the accompanying documents. The product components must be marked as belonging to the product. The labelling must clearly show the assignment of the individual components to one another.

### 2.3 Dimensioning and execution

- (1) For the execution, the corresponding specifications of DIN 18195, the safety data sheets and installation instructions as well as the processing guidelines and work instructions of the manufacturer apply. More detailed information can be found in the appendix.
- (2) The application of the seal must be carried out in at least 2 operations. The minimum values given in Table 1 for the total dry film thickness must be observed. The must not be below these values at any point of the seal.

Table 1: Minimum values for the execution of a seal made of WIDOCRYL Detail

Load case	Dry film thickness <sup>J)</sup> [mm]
Soil moisture and non-accumulating leachate	≥ 2,0
Non-pressing water under high stress	≥ 2,0
Pressing water and accumulating leachate	≥ 2,0
Water pressing from inside	≥ 2,0

<sup>1)</sup> with reinforcing insert *WIDOPAN polyester mesh fleece G165*.

- (3) There must be used only the reinforcing insert *WIDOPAN polyester mesh fleece G165* supplied by the manufacturer together with the liquid plastic for building sealing and designated for use in the structural sealing.
- (4) After coating, the cracks in the substrate must not spread out by more than 1.0 mm.

### **3 ASSESSMENT OF CONFORMITY**

#### **3.1 General**

The confirmation of the building product's conformity with the requirements of this general building authority test certificate shall be done for each production plant with the manufacturer's declaration of conformity based on a plant's own production control and an initial test of the building product in compliance with the following requirements.

#### **3.2 Initial test**

For initial testing the manufacturer of the building product shall consult an accredited test institute.

In the context of the initial test the tests of the characteristic values in accordance with 2.1.3 shall be performed. In this regard, the test values shall deviate from the reference values by a maximum of the tolerances given in that sub-clause. The initial test for the production plant may be ignored, since the samples were taken from this production plant's running production for tests in the context of verifying the usability.

In case the production preconditions change, the initial test shall be re-performed.

#### **3.3 Plant's own production control**

A plant's own production control shall be established and performed in the production plant in accordance with DIN 18200.

In the context of the plant's own production control tests in accordance with table 3 of the current testing principles shall be performed during running production within the periods and frequencies specified in the testing principles.

When specifying the test frequency the regularity of the production shall be ensured.

In case the manufacturer distributes supplied reinforcements and auxiliaries together with the waterproofing material he shall convince himself of the material properties being in accordance with the regulations. This may either be by the manufacturer's delivery control or by supplying a "test report 2.2" in accordance with DIN EN 10204 from the supplier of the reinforcement. The decisive items for this are the characteristic values and tolerances given in 2.1.3.

The results of the plant's own production control shall be recorded, evaluated and stored for a minimum period of five years. Upon changes or extensions of the general building authority test certificate, by request, these shall be submitted to the testing institute and the supreme building control authority.

#### **4 CONFORMITY MARKS**

Upon the availability of the initial test report and the establishment of the plant's own production control the manufacturer shall identify the building product on the packing or in the accompanying documents using the conformity mark (Ü mark) in accordance with the conformity mark regulation (ÜZVO) of the states. Based on the previous initial testing of the building product and the plant's own production control the manufacturer declares the conformity with the requirements by using the Ü sign. Further information is given in the identification in accordance with 2.2.3.

#### **5 LEGAL BASIS**

The legal basis for issuing the general building authority test certificate is the respective building law of the state in connection with the Building Rules List A Part 2 seq. no. 2.51. In accordance with § 21a clause 2 and § 21 clause 7 of the model building regulation the according respective paragraphs of the respective state building regulations are also valid.

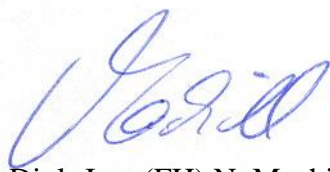
#### **6 GENERAL INFORMATION**

1. With this general building authority test certificate the usability of the building product subject to this document is verified as defined by the state regulations for buildings.
2. The general building authority test certificate does not replace the statutory permissions, approvals and certificates for building projects.
3. The general building authority test certificate is issued without prejudice to third-party rights, especially private property rights.
4. Manufacturer or distributor of the building product shall provide the user of the building product with copies of the general building authority test certificate and shall point out that the general building authority test certificate shall be available on the application site.
5. The general building authority test certificate may only be copied completely. Partial publication requires the agreement of the Polymer Institut. Texts and illustrations of brochures may not contradict the general building authority test certificate. Translations of the general building authority test certificate shall contain the note "Von der erteilenden Prüfstelle nicht geprüfte Übersetzung der deutschen Originalfassung" ("Translation of the German original document not certified by the issuing test institute").
6. The issue of the general building authority test certificate may be revoked. The requirements of the general building authority test certificate can be subsequently amended, especially when this is required by new technical expertise. The validity expires as soon as changes of the composition or of the system are made.

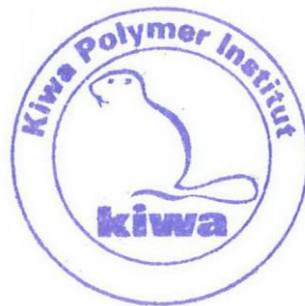
## 7 INFORMATION ON LEGAL REMEDY

Opposition or legal action in accordance with the legal regulations of the state in which the applicant is domiciled is permitted against this general building inspectorate test certificate. In the case of a right of objection, the objection must be submitted in writing or for recording to Kiwa GmbH, Polymer Institut, Quellenstrasse 3, 65439 Flörsheim-Wicker within one month of receipt of this general building inspectorate test certificate. Decisive for the timeliness of the objection is the time of receipt by Kiwa GmbH, Polymer Institut.

Flörsheim-Wicker, 18-08-2017

A handwritten signature in blue ink, appearing to read "N. Machill".

Dipl.-Ing. (FH) N. Machill



**Appendix**

**Characteristic values of the substances/components of the sealing system**

<b>WIDOCRYL concrete primer PM</b>		
Density	g/cm <sup>3</sup>	1,024
Viscosity	mPas	180
Content of non-volatile components	M.-%	98,2
Ash content	M.-%	0,0
<b>WIDOCRYL-Detail</b>		
Density	g/cm <sup>3</sup>	1,387
Viscosity	mPas	490
Content of non-volatile components	M.-%	98,8
Ash content	M.-%	35,8
<b>WIDOPAN polyester mesh fleece G165</b>		
Area weight	165 g/m <sup>2</sup>	
Maximum tensile force	Longitudinal: 1200 N/50 mm	
	Transversal: 855 N/50 mm	
Maximum tensile force extension	Longitudinal: 17.4 %	
	Transversal: 25.1 %	



## Technical data sheets



## Product information

### WIDOCRYL concrete primer PM

#### Product data

WIDOCRYL concrete primer PM

##### Base

Methyl methacrylate resin

##### Consumption

400 - 500 g/m<sup>2</sup> according to the absorbency of the substrate

##### Processing time/pot life

At +20° Celsius ca. 15 min.

##### Full hardening time (hardening with hardener)

At +20° Celsius ca. 30 min.

##### Packaging unit

10.00 kg

##### Minimum processing

temperature -5° Celsius

##### Temperature resistance

-20° Celsius to +80° Celsius (after hardening)

##### Cleaning in fresh condition

WIDOPAN cleaner

##### Storage

With closed container and constant storage temperature between +15° and +20° Celsius up to 6 months

WIDOCRYL concrete primer PM is a primer system consisting of a low viscosity, colourless reaction resin based on methyl methacrylate and a hard powder.

##### Utilisation

WIDOCRYL concrete primer PM is a primer with excellent adhesion to wet concrete and damp screed. WIDOCRYL concrete primer PM may only be processed in the unfilled state.

**In general, the hardening process must be tested and adhesion samples to the substrate must be carried out.**

##### Surface preparation

The surface to be primed must be dry, dust-, grease- and oil-free, as well as firmly adhering and stable. Loose and hollow tiles must be removed. Metal substrates must be prepared before application of the primer corrosion-free by grinding or blasting.

##### Mixture

The required amount of hardener is temperature-dependent. The dosage is indicated on the container lid.

The concrete primer must be applied over the entire area, pore-tight and capillary-tight as a closed film and must always be sprinkled with quartz sand of grain size 0.3 - 0.7 mm or 0.4 - 0.8 mm.

If this cannot be achieved with one operation, a second primer must be used.

**Please also observe the priming instructions and the technical information!**

The application recommendations on the use of our products are made to the best of our knowledge based on our experience. However, they do not exempt the purchaser from the obligation to test our products, in his own responsibility, for their suitability for their intended use. With the appearance of a new edition, this product information loses its validity.

Version: 11/2008



## Product data

WIDOCRYL-Detail

### Base

Urethane-modified methyl methacrylate resin

### Reinforcement

Fabric mesh G 120  
Polyester mesh fleece G 165  
(for connections and penetrations)

### Hardening with hardener

Rainproof after 15 min.  
Walkable after 30 min.

### Water vapour diffusion resistance number (p) ca. 5.150

### Colour basic tone

window grey

### Packaging unit

13.00 kg

### Minimum working temperature -5°

Celsius

### Temperature resistance -30°

Celsius up to +80° Celsius

### Cleaning in fresh condition WIDOPAN

cleaner

### Storage

With closed container and constant storage temperature below +25° Celsius up to 6 months workable.

## Product information

### WIDOCRYL-Detail

WIDOCRYL-Detail is the liquid plastic sealing system used to make connections on flat roofs and similar components, joint laminates (alternative to WIDOPAN-FD), also in combination with bituminous or plastic sealing membranes. The material basis of WIDOCRYL-Detail is urethane-modified methyl methacrylate resin (PMMA), which is slightly thixotropic for the application area of joining formation. Polyester mesh fleece G 165 is used as reinforcement in joint laminates. The reinforcement determines the tear strength and the elongation at break and ensures a uniform layer thickness. It is adapted on site to the conditions of the building structure. This creates a homogeneous and crack-bridging seal that is permanently elastic.

The overlap of the reinforcement with each other must be at least 5 cm. The overlap to foreign materials must be determined on a case by case basis, but it should not be less than 10 cm in width. Detail connections and all types of built-in components are sealed with the WIDOCRYL Detail liquid plastic system. With WIDOCRYL top seal PM, the colour of the material can be changed and thus adapted to different environments.

WIDOCRYL-Detail adheres with the right primer on almost any surface and the connections are permanently waterproof. WIDOCRYL-Detail is UV-stable and thus resistant to aging, root resistance tested in accordance with DIN EN 13948 (FLL Guideline). In addition, WIDOCRYL detail is resistant to flying sparks and radiant heat according to DIN EN 13501-5.

**Please also observe the priming instructions and the technical information!**

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## Product data

WIDOPAN polyester mesh fleece G 165

### Base

Fleece made of polyester and polyester fabric

### Density/Specific weight

165 g/m<sup>2</sup>

### Maximum longitudinal tensile force (N/5 cm)

1250

### Maximum transversal tensile force (N15 cm) 900

### Longitudinal elongation (%)

25

### Transversal elongation (%)

35

## Product data

WIDOPAN polyester mesh fleece G 225

### Base

Fleece made of polyester and polyester fabric

### Density/Specific weight

225 g/m<sup>2</sup>

### Maximum longitudinal tensile force (N/5 cm) 1250

### Maximum transversal tensile force (N/5 cm) 1000

### Longitudinal elongation (%)

25

### Transversal elongation (%)

35

## Product information

### WIDOPAN polyester mesh fleece G 165 and G 225

The WIDOPAN polyester mesh fleece is used to reinforce some seals with the liquid plastics WIDOPAN-FD, WIDOPAN-Plus (/Tube), WIDOPAN-PD, WIDOPUR 1K, WIDOPUR-LF 2K, WIDOCRYL-PM (only connectors) and WIDOCRYL-Detail.

With the special WIDOPAN polyester mesh fleece, the layer thickness is regulated and the tear strength improved in the case of the liquid-applied seals.

In addition to the excellent technical values, the WIDOPAN polyester grid fleece distinguishes itself during processing by its fast and complete ability to soak, and can be worked precisely to fit edging and connection details.

Due to the needled polyester fabric, the fleece can be laid directionally stable, there are no length changes and the blanks can be prepared exactly.

### Delivery sizes

Roll length 50 m

Widths in cm at G 165:10/15/20/25/30/35/50/70/105  
widths in cm at G 225:15/20/25/30/35/40/45/50/105

### Storage

Protection against moisture is absolutely necessary. Unlimited shelf life when properly stored.

**Please also observe the technical information!**

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