

## SYSTEM DATA SHEET

# Sikafloor® MultiDur ES-21

### SMOOTH COLOURED EPOXY FLOOR SYSTEM

#### DESCRIPTION

Sikafloor® MultiDur ES-21 is a 2-part epoxy coloured resin based self-smoothing floor finish that can provide a hard wearing, seamless, low maintenance, smooth gloss finish. For medium - heavy wear conditions. Thickness 1.5 – 3.0 mm. Internal use.

#### USES

Sikafloor® MultiDur ES-21 may only be used by experienced professionals.

- On concrete and cementitious screeds with normal up to medium heavy wear e.g. storage and assembly halls, maintenance workshops, garages, loading ramps etc.

#### CHARACTERISTICS / ADVANTAGES

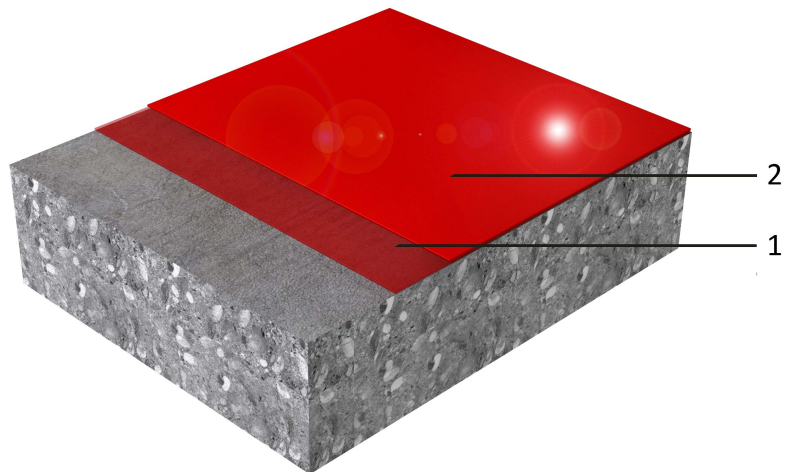
- Seamless and hygienic
- Good chemical and mechanical resistance
- Good wear and abrasion resistance
- Easy application
- Waterproof
- Gloss finish
- Easy cleanability
- Low maintenance

#### APPROVALS / CERTIFICATES

- Particle emission certificate Sikafloor-264 N CSM Statement of Qualification – ISO 14644-1, class 3– Report No. SI 1709-952.
- Outgassing emission certificate Sikafloor-264 N: CSM Statement of Qualification – ISO 14644-8, class 6,5 - Report No. SI 1709-952.
- Fire classification in accordance with EN 13501-1, Report-No KB-Hoch-170625, Hoch Fladungen, Germany, May 2017.
- Fire classification in accordance with EN 13501-1, Report-No KB-Hoch-170619, Hoch Fladungen, Germany, May 2017.
- Certificate of conformity for indirect food contact, Institut Fresenius, Report No. 3419034-01, Germany, November 2017

# SYSTEMS

## System Structure



Layer	Product
1. Primer	Sikafloor®-156/-160/-161
2. Wearing finish	Sikafloor®-264 N

<b>Chemical base</b>	Epoxy
<b>Appearance</b>	Smooth gloss finish
<b>Colour</b>	Available in many colours
<b>Nominal Thickness</b>	~1,5–3,0 mm

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	~76 (7 days / +23 °C)	(DIN 53 505)
<b>Abrasion Resistance</b>	~35 mg (CS 10/1000/1000) (7 days / +23 °C)	(DIN 53 109 Taber Abraser Test)
<b>Resistance to Impact</b>	~10 Nm (14 days / +23 °C / 50 %)	(ISO 6272)
<b>Compressive Strength</b>	~50 N/mm <sup>2</sup> (28 days / +23 °C, Resin filled 1:0,9 with F34)	(EN 196-1)
<b>Tensile Strength in Flexure</b>	~20 N/mm <sup>2</sup> (28 days / +23 °C, Resin filled 1:0,9 with F34)	(EN 196-1)
<b>Tensile Adhesion Strength</b>	> 1,5 N/mm <sup>2</sup> (failure in concrete)	(ISO 4624)
<b>Reaction to Fire</b>	Bfl-S1	(DIN EN 13501-1)
<b>Chemical Resistance</b>	Resistant to many chemicals. Contact Sika Technical Service for specific information.	

Thermal Resistance	Exposure*	Dry heat
	Permanent	+50 °C
Short-term max. 7 d	+80 °C	
Short-term max. 12 h	+100 °C	

Short-term moist/wet heat\* up to +80 °C where exposure is only occasional

(steam cleaning etc.)

\*No simultaneous chemical and mechanical exposure.

## APPLICATION INFORMATION

<b>Consumption</b>	Sikafloor® MultiDur ES-21 system ( ~ 1,5–3,0 mm)			
	<b>Coating System</b>	<b>Product</b>	<b>Consumption</b>	
	Primer	1 × Sikafloor®-156/-161/-160	~ 0,3–0,5 kg/m <sup>2</sup>	
	Wearing layer	1 pbw Sikafloor®-264 N filled with up to 1 pbw quartz sand (0,1–0,3 mm)	Maximum 1,9 kg/m <sup>2</sup> /mm. Resin + quartz sand	
<b>Product Temperature</b>	Refer to the individual Product Data Sheet			
<b>Ambient Air Temperature</b>	+10 °C min. / +30 °C max.			
<b>Relative Air Humidity</b>	80 % r.h. max.			
<b>Dew Point</b>	Beware of condensation! The substrate and uncured floor must be at least 3 °C above dew point to reduce the risk of condensation or blooming on the floor finish.			
<b>Substrate Temperature</b>	+10 °C min. / +30 °C max.			
<b>Substrate Moisture Content</b>	≤ 4% pbw Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).			
<b>Waiting Time / Overcoating</b>	Before applying Sikafloor®-264 N on Sikafloor®-156/-160/-161 allow:			
	<b>Substrate Temperature</b>	<b>Minimum</b>	<b>Maximum</b>	
	+10 °C	24 hours	3 days	
	+20 °C	12 hours	2 days	
	+30 °C	8 hours	1 day	
<b>Applied Product Ready for Use</b>	<b>Temperature</b>	<b>Foot Traffic</b>	<b>Light Traffic</b>	<b>Full Cure</b>
	+10 °C	~72 hours	~6 days	~10 days
	+20 °C	~24 hours	~4 days	~7 days
	+30 °C	~18 hours	~2 days	~5 days

## PRODUCT INFORMATION

<b>Packaging</b>	Refer to the individual Product Data Sheets
<b>Shelf life</b>	Refer to the individual Product Data Sheets
<b>Storage conditions</b>	Refer to the individual Product Data Sheets

## MAINTENANCE

### CLEANING

Refer to the Method Statement Sikafloor®- Cleaning Regime

### FURTHER DOCUMENTS

- Sika® Method Statement Mixing & Applications of Flooring systems
- Sika® Method Statement Evaluation and Preparation of Surfaces for Flooring systems

### LIMITATIONS

- Do not apply Sikafloor® MultiDur ES-21 on substrates with rising moisture.

- Freshly applied Sikafloor® MultiDur ES-21 must be protected from damp, condensation and water for at least 24 hours.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure the Sikafloor®-264 N in each area is applied from the same control batch numbers.
- Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading, may lead to indentations in the resin.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

## BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

Sika Hellas ABEE  
15 Protomagias Str.  
14568 Kryoneri  
Attica-Greece  
Tel.: +30 210 8160 600  
Fax: +30 210 8160 606  
www.sika.gr | sika@gr.sika.com



System Data Sheet  
Sikafloor® MultiDur ES-21  
May 2018, Version 02.01  
020811900000000074

SikafloorMultiDurES-21-en-GR-(05-2018)-2-1.pdf