

TI 231

Technical Information Surface Protection Linings
Issue 18.09.2019

ALKADUR ES

Broadcast lining system with single-coloured sealing.

Base

Epoxy resin

Material Group

Floor- / wall coatings – Broadcast coatings

Description

Jointless, broadcast coating. Colouring is achieved by a single-coloured sealing of the surface. The system is resistant to traffic and to acids, alkalis, oils and fats. By multiple application of the broadcast-coating, the thickness can be varied. The non-slip surface can be adjusted to the requirements of the specific project.

Properties

- jointless
- if required slip resistant version possible
- thermal resistance up to 60 °C

Physical Data

Property (unit), Test method	Value
Density [g/cm ³], DIN EN ISO 1183-1, ASTM D 792	1.8
Lowest working temperature [°C]	10
Maximum working temperature [C]	30
Data are mean values	

Chemical Resistance

The system provides a very good resistance against acids, alkalis, oils and fats.

For detailed information about the chemical resistance please refer to Technical Information TI 230.

Substrate

Concrete / screed

Refer to DIN EN 14879-1 as well as to STEULER-KCH-Formsheet 010.

To attain a sufficient adhesive tensile strength, the substrate is generally to be pretreated in such a way that it is free of cement slurry, cement skin, loose and crumbly particles, structure imperfections and separating substances.

The residual moisture of cementitious substrates must not exceed 4 %.

The substrate should have a temperature of approx. 10–25 °C.

Moisture

During application, the substrate must be kept absolutely dry. Uncured material has to be protected from any kind of moisture (condensation, fog, precipitation or other water source). Distance to dew point has to be at least 3 K, at a relative humidity of above 70 % at least 5 K.

System Design

- ALKADUR DFG Primer
- Alkadur ES - Primer-Filling
- Alkadur ES Sealing (different configurations possible)
- *Alternatively Sealing with improved UV-resistance (different configurations possible)*

Packaging / Shelf life

All components must be stored and transported dry and frost-free. The minimum storage life applies to a storage temperature of 20 °C, unless otherwise specified. Higher temperatures reduce, lower temperatures increase the shelf life.

Components	Item number	Package	Content	Shelf life
Alkadur-DFG/V-Solution 1	5035120011	Jug	3 kg **	24 Months
Alkadur-DFG-Solution 2 RAL 7030*	5035134004	Drum	6 kg **	24 Months
Alkadur-ES-Sealing Solution RAL 7030*	5035157001	Drum	25 kg	24 Months
Alkadur-DV-Hardener	5035142011	Canister	3 kg	24 Months
SKC-Filler 11	5011198002	Bag	20 kg	24 Months
SKC-Filler 13	5011200001	Bag	25 kg	24 Months
SKC-Filler 15	5011202001	Bag	25 kg	24 Months
SKC-Filler 16	5011203001	Bag	25 kg	24 Months

* The colours may differ slightly from the RAL colour template. Other colours on request.

** predosed packaging

For handling, transport and storage observe the relevant material safety data sheets.

Mixing Ratio / Consumption

Alkadur DFG Primer

	Part by weight	Part by volume
Alkadur-DFG/V-Solution 1	1.0	0.97
Alkadur-DFG-Solution 2	2.0	1.74
Total consumption in kg/m ² (approx.)	0.250	
Work steps	1	
Spreading with SKC-Filler 16; consumption: 3.000 kg/m ²		

Alkadur DFG Primer-Filling

	Part by weight	Part by volume
Alkadur DFG/V-Solution 1	1.0	2.9
Alkadur DFG-Solution 2	2.0	5.3
SKC-Filler 13	5.33	11.4
Consumption	2.145 kg/m ²	
Work steps	1	
Layer thickness	approx. 1.3 mm	
Spreading with SKC-Filler 15 / 16; Consumption: 4.000 kg/m ²		

Alkadur ES Sealing Solution

At surface temperatures below 15 °C SKC-Filler 13 or SKC-Filler 11 should be reduced 20 - 30 % to achieve a better distribution.

1st Sealing - Rough adjustment	Part by weight	Part by volume
Alkadur-ES-Sealing-Solution	2.18	5.7
Alkadur DFG/V-Solution 1	1.0	2.9
SKC-Filler 13	4.76	10.6
Consumption	0.720 kg/m ² with SKC-Filler 15 und 0.900 kg/m ² with SKC-Filler 16	
Work steps	1	
2nd Sealing (2. Work steps for medium and smooth adjustment)	Part by weight	Part by volume
Alkadur-ES-Sealing-Solution	2.17	5.7
Alkadur DFG/V-Solution 1	1	2.9
SKC-Filler 11	3.14	7.1
Consumption		
medium adjustment	0.160 kg/m ² with SKC-Filler 15 0.200 kg/m ² with SKC-Filler 16	
smooth adjustment	0.720 kg/m ² with SKC-Filler 15; 0.900 kg/m ² with SKC-Filler 16	
Work steps	2	

Alternative design of the sealing - Sealing with improved UV resistance

1st Sealing - Rough adjustment	Part by weight	Part by volume
Alkadur-ES-Sealing-Solution	2.17	4.0
Alkadur-DV-Hardener	1.0	2.0
SKC-Filler 13	4.76	7.4
Consumption	0.720 kg/m ² with SKC-Filler 15; 0.900 kg/m ² with SKC-Filler 16	
Work steps	1	
2nd Sealing (2. Work steps for medium and smooth adjustment)	Part by weight	Part by volume
Alkadur-ES-Sealing-Solution	2.17	4.0
Alkadur DV-Hardener	1.0	2.0
SKC-Filler 11	3.14	5.0
Consumption		
medium adjustment	0.160 kg/m ² with SKC-Filler 15 0.200 kg/m ² with SKC-Filler 16	
smooth adjustment	0.720 kg/m ² with SKC-Filler 15; 0.900 kg/m ² with SKC-Filler 16	
Work steps	2	

Waiting Times

The waiting times between the individual orders depend on the temperature:

10 °C	minimum 16 h	maximum 72 h
20 °C	minimum 10 h	maximum 48 h
30 °C	minimum 8 h	maximum 36 h

Pot Life

Pot life depends on temperature:

10 °C	approx. 70 minutes
20 °C	approx. 30 minutes
30 °C	approx. 20 minutes

Curing times

The finished coating is fully mechanically and chemically resistant at 20 °C after 7 days.

Safety and Disposal

- Sufficient aeration and de-aeration (especially in tanks and pits).
- No smoking/no fire
- Refer to the Safety Data Sheets
- Observe danger references and safety recommendation labels.
- Wear required personal protective equipment (avoid skin contact with materials)
- Clean and protect hands with skin protective soap and skin protection cream (no solvents)
- Wear a dust mask when sanding (e.g. for repairs).
- Instructions as per § 14 of GefahrstoffV (Toxic Substances Act) and TRGS 507 (Technical regulations for Hazardous Substances - Germany)
- Accident precautions issued by the Liability Insurance Association for the Chemical Industries (Germany)

Do not expose materials to heat or open flame, this applies in particular to welding works (weld beads).

Preferably consume residual quantities. Do not pour into a spout or dustbin! Collect separately for disposal in durable, lockable and labeled containers.

GISCODE

Product	GISCODE
Alkadur DFG Primer	RE 1
Alkadur DFG Filling	RE 1
Alkadur ES Sealing Solution	RE 1
Option Alkadur ES Sealing Solution	RE 1

Cleaning of Equipment

Tools soiled with uncured materials can be cleaned with STEULER UNIVERSAL CLEANER (Technical Information TI 190). Only clean in well ventilated areas.

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This issue replaces all previous versions.