

ALPATEC 30143

Characterisation

Thixotropic two component RTV silicone compound for textile coating and for anti-slip prints

Technical Data

	ALPATEC 30143 Component A	ALPATEC 30143 Component B		
Colour	Transparent	Transparent		
Density	1.10	0.10	g/cm ³	DIN 53479 ¹
Viscosity	60,000	55,000	mPa·s	Brookfield HBTD ¹ , Sp.6/20 rpm
	Catalysed Mass			
Mixing ratio	1 : 1			in weight shares
Processing time	10		h	approx. 50 g, beaker method ¹⁾
	Vulcanisate			
Hardness Shore A	25			DIN 53505 ²⁾
Tear strength	4		N/mm ²	DIN 53504, S3A ²⁾
Elongation at break	300		%	DIN 53504, S3A ²⁾
Tear propagation resistance	10		N/mm	DIN 53504, S3A ²⁾
Storage	Component A and B of ALPATEC 30143 can be processed at best if stored between 5 °C and 30 °C in tightly closed original containers for at least six months			
¹ = measured under standard climate DIN 50 014-23/50-2				
² = vulcanisate, measured after 1 h 130 °C and storage of 24 h under standard climate DIN 50014-23/50-2				
The platinum catalyst is contained in component A				

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Properties

- Free from heavy metals
- Good stability to chemicals
- Excellent mechanical properties
- High transparency
- Easy to process
- Corresponds to Ökotex 100

Processing / fixation

Weigh component A and B in a mixing ratio 1 : 1 according to their weight shares and mix with a spatula or the stirrer until the mass is homogeneous. The pot life in which ALPATEC 30143 has to be applied starts with the mixing. The paste can be coloured with silicone pigments e.g. COLORMATCH SI dyes into the desired shades.

To keep the vulcanisate absolutely bubble-free degas under vacuum the mixed silicone (approx. 5 - 10 min at 10 - 20 mbar).

ALPATEC 30143 A is self-crosslinking with ALPATEC 30143 B. The standard recommendation for curing is 130 °C - 150 °C, 3 - 2 min.

A mechanical anchoring in the substrate makes this RTV-2 component silicone adhere. Therefore the silicone has to penetrate into the substrate well and sufficiently.

Properties / Fastnesses

ALPATEC 30143 can be excellently processed with the usual screen printing methods. Very stretchy, resilient and brilliant printing effects with a very good fastness can be achieved mostly on elastic textile substrates. With the help of thick layer screens, very soft but stable anti-slip effects with excellent stop function are produced. Depending on the substrate, prints with ALPATEC 30143 have very good fastnesses to washing and dry cleaning.

Application Technique

Processing

Standard recipe:	50 parts	ALPATEC 30143 A
	50 parts	ALPATEC 30143 B

The two components ALPATEC 30143 A and ALPATEC 30143 B are mixed together at a weight ratio of 1:1 and homogeneously stirred with a spatula or a stirrer.

Application

The silicone pastes can be printed in screen printing with meshes between 15 and 48 T/S. ALPATEC 30143 is excellently suited for three-dimensional print effects when using the corresponding thick layer screens.

For multi-colour thick layer effects, the pre-printed layer can be dried in advance by means of the infrared intermediate drier. Take care that the first layer is not completely dry. A complete drying would interfere with the intermediate layer adhesion. The layer is sufficiently dried when its handle is still "tacky".

Pot life

The print paste mixed with the hardener is to be processed within 10 hours. The pot life information refers to a temperature of 21 °C. Higher temperatures accelerate the reaction (e.g. at 35 °C, approx. 8 hours) and lower temperatures slow down the process.

Additives and Auxiliaries

COLORMATCH SI colour pigments

We recommend adding 0.1 – 5.0 % COLORMATCH SI pigments to colour ALPATEC 30143.

Diluting Generally not necessary. The viscosity may be reduced by adding 0.1 – 5.0 % ALPA-OIL 50 or aromatic and aliphatic hydrocarbons (e.g. white spirit).

Thickening A subsequent thickening or reduction of the flowing properties can be achieved by adding 0.1 - 0.2 % KÖRAFORM TM to the ready mixture or to one of the two components. The thickening process starts slowly and is ready after 10 min. This mainly facilitates the removal of the honeylike printing colour from the screen. However, the thickening process simultaneously reduces the flowing properties of the paste and thus the surface brilliancy.

Cleaning of Working Utensils

We recommend white spirit, KÖRASOLV GL or the usual plastisol cleaners for cleaning screens, screen printing stencils or working utensils. Cured print paste residues can only be removed mechanically or stripped off after complete curing. We recommend carrying out preliminary tests with regard to the stability of the screen layers to the cleansing agents in use.

Drying / Fixing ALPATEC 30143 A is self-crosslinking with ALPATEC 30143 B. The standard recommendation for fixation is 130 – 150 °C, 3 – 2 min.

Recommendation for Use

Before going into production we recommend making it a rule to test the suitability of the print pastes for the substrates to be used.

Special Indications / Impaired Curing (Inhibiting)

Certain substances may impair or fully prevent the curing behaviour of addition-crosslinking silicones. Typical signs are tacky surfaces of the silicone to the contact areas.

The following substances are to be considered particularly critically:

- substances containing nitrogen (amines, polyurethanes, epoxy resins)
- substances containing sulphur (polysulphides, polysulphones, natural and synthetic rubber (EPDM))
- organo-metal compounds (organotin compounds, vulcanisates and hardeners of condensation curing silicones)

When working with unfamiliar substances we recommend carrying out compatibility tests.

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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CHT R. BEITLICH GMBH

Postfach 12 80, 72002 Tübingen, Bismarckstraße 102, 72072 Tübingen, Germany

Telephone: 07071/154-0, Fax: 07071/154-290, Email: info@cht.com, Homepage: www.cht.com