BUILDING TRUST

PRODUCT DATA SHEET

SikaCor®-510 Blade

UV-resistant, water borne 2-pack Polyurethane-Topcoat for Rotor Blades

DESCRIPTION

SikaCor®-510 Blade is a water born and mechanically resistant 2-pack PU-topcoat, with a matt finish.

USES

Top coat for rotor blades.

CHARACTERISTICS / ADVANTAGES

- Water borne
- High mechanically resistant
- Very high weather resistance and colour retention
- Very low VOC content, VOC-value of approx. 23 g/l

PRODUCT INFORMATION

Packaging	SikaCor®-510 Blade (A):	8.5 kg and 200 kg				
	SikaCor®-510 Blade (B):	1.5 kg and 212 kg				
	Other packaging upon request					
Appearance and colour	RAL 7035, RAL 9010 Other colour shades upon request Gloss unit (DIN 53019-1): 10 ± 5 GU at 60° measuring angle					
Shelf life	In originally sealed containers in a cool and dry environment: 12 month					
Storage conditions	In originally sealed containers in a cool and dry environment at temperatures between +5 °C and +25 °C.					
Density	~1.2 kg/l					
Solid content	~47.5 % by volume ~60.6 % by weight					
Viscosity	At 20°C material temperature					
	Shear rate	**Mix**	**Shear rate**	**Comp. A**	**Shear rate**	**Comp. B**
	$\dot{\gamma}$=250 s^{-1}	~0.76 Pa s	$\dot{\gamma}$=250 s^{-1}	~1.2 Pa s	$\dot{\gamma}$=500 s^{-1}	~1.6 Pa s
	$\dot{\gamma}$=5 s^{-1}	~1.29 Pa s	$\dot{\gamma}$=5 s^{-1}	~2.5 Pa s		
Chemical resistance	SikaCor®-510 Blade in combination with the complete coating system is resistant against weathering.					

SYSTEM INFORMATION

System

Rotor blade:
1 x SikaCor®-350 Blade (fine putty)
1 x SikaCor®-420 Blade (pore filler)
2-3 x SikaCor®-510 Blade (top coat)

APPLICATION INFORMATION

Mixing ratio

Components A : B	
By weight	85 : 15
By volume	4.9 : 1

Consumption

Theoretical material-consumption/VOC without loss for medium dry film thickness:

Dry film thickness	60 µm
Wet film thickness	126 µm
Consumption	0.150 kg/m²
VOC	2.4 g/m²

Max. dry film thickness per layer: 60 microns

Material temperature

Between +10° C and +30° C

Relative air humidity

Max. 75 %, except the surface temperature is significantly higher than the dew point temperature, it shall be at least 3 K above dew point.

Substrate temperature

Between +10° C and +30° C

Pot Life

At + 20°C / 30 % RH	~80 min
At + 23°C / 50 % RH	~60 min
At + 30°C / 80 % RH	~45 min

Caution: End of potlife is not noticeable.

Curing time

Drying stages (ISO 9117-5):

Climate	DS 1	DS 6	DS 7
+ 23°C / 30 % RH	45 min	5 h	5 h
+ 23°C / 65 % RH	20 min	5 h	5 h
+ 30°C / 85 % RH	25 min	4.5 h	4.5 h

Final drying time:
At + 20°C and good ventilation the final hardness is achieved within 5 – 7 days.

Waiting time to overcoating

Min.: After 1 h
Max.: 72 h
In case of longer waiting times the surface must be sanded.
Temporary storage and the transport of coated parts should be carried out using appropriate methods. Do not use shrink-wrap or any other type of packaging like plastic film.

BASIS OF PRODUCT DATA

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

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Lightly sand the surface with medium grit sandpaper. The surface should be clean, dry, free from dust and any separating agents or other contamination. Copper, cast aluminium and powder coatings may need to be primed with a suitable Sika primer.

MIXING

Stir component A very thoroughly using a mechanical mixer (start slowly, then increase up to approx. 300 rpm). Add component B carefully and mix both components very thoroughly (including sides and bottom of the container). Mix for at least 3 minutes until a homogeneous mixture is achieved. Fill mixed material into clean container and mix again shortly as described above.

2-component spraying equipment:
Stir component A thoroughly using a mechanical mixer (starting slowly then increasing speed up to approx. 300 rpm) before filling into the tanks of the spray equipment. During application ensure component A is mechanically stirred at regular intervals. If using airless equipment (automatic dosage) a dosage control shall be installed to monitor correct mixing ratio.
During mixing, handling and application always wear suitable personal protective equipment as defined in the relevant SDS document.

APPLICATION

The method of application has a major effect on achieving uniform thickness and appearance. Adding water reduces the sag resistance and final dry film thickness. Application by roller or brush may require additional applications to achieve the required coating thickness, depending on type of construction, site conditions, colour shade etc. Prior to major coating operations a test application on site may be useful to ensure the selected application method will provide the requested results.

Brush or roller

Cup gun

Airmix-spraying:
Nozzle size 0.33 - 0.43 mm (0.013 - 0.017 inch)

Airless-spraying:
Pressure of minimum. 150 bar,
nozzle size 0.38 – 0.53 mm (0.015 - 0.021 inch), spraying angle 40° – 80°

If necessary max. 3 % water may be added to adapt the viscosity

CLEANING OF EQUIPMENT

Water

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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.

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