

TEKNOBLADE 9000-40

Elastomeric coating

TEKNOBLADE 9000-40 is a two-pack, solvent-free elastomeric coating designed for dispenser gun application.

Intended for production or repair of refurbishment of Leading Edge

Protection on Wind Turbine Blades.

Substrate types: Tested and approved on Fibre reinforced polymer and previously lacquered surfaces.

TEKNOBLADE 9000-40 has high impact-resistance and good abrasion-resistance. It will cure down to a temperature of -18°C . TEKNOBLADE 9000-40 is usually applied in 2-3 mm thickness.



TECHNICAL DATA

Fields of application	Wind Turbine Generator Blades (WTG)		
Solids	Approx. 100% by volume		
Total mass of solids	Approx. 1080 g/l		
Volatile organic compound (VOC)	Approx. 0 g/l (DIRECTIVE 2010/75/EU) The VOC value provided is the average value for factory produced products, and consequently it will be subject to variations between individual products covered by this Technical Data Sheet.		
Theoretical spreading rate	Dry film (mm)	Wet film (mm)	Theoretical spreading rate (m²/l) (depending on thickness)
	2-4	2-4	0.5
Practical spreading rate	The values depend on the application technique, surface conditions, etc. To obtain sufficient rain erosion protection – a film thickness below 1.5 mm is not recommended.		
Colours	White.		
Gloss (60°)	Gloss		
Hardener	Comp. B: TEKNOBLADE HARDENER 7000-40		
Mixing ratio (A:B)	1:1 parts by volume		
Gel time	Approx. 50 s depending on film thickness and temperature.		
Storage	The storage stability is shown on the label. Must be stored tightly closed and kept cool and dry. Storage temperature is $+5^{\circ}\text{C}$ - $+35^{\circ}\text{C}$.		

DIRECTION FOR USE

Surface preparation	<p>Cleanliness: Any contamination that might be detrimental to surface preparation and coating must be removed prior to application. The cleaning method used shall ensure that water-soluble salts, dust, grease, and oils are fully removed.</p> <p>Surface roughness: dense and uniform surface roughness free of dust.</p> <p>Recommended sandpaper grit size: 60-80.</p> <p>Coarse, dense, and clean roughness is mandatory for optimum and sound adhesion.</p> <p>Additional instructive information for surface preparation and application can be found in the Teknos Application Guide TW-BRS-1802.</p>
Application method	Caulk gun
Application	<p>Vertical surfaces:</p> <p>The required thickness of coating is achieved by a single pass with the dispenser gun.</p> <p>The components must be kept at a temperature between +15°C and +50°C before use to ensure an efficient fluid flow through the static mixer tube and application tip. Recommended minimum temperature is +25°C.</p> <p>NOTE: The viscosity of the product depends on the temperature.</p> <p>The film thickness may be controlled on a reference plate (steel) with a dry film gauge. Recommended single-pass film thickness 1.5-2.5 mm. The curing process is exotherm and creates some heat depending on the applied film thickness. The cure will be slower at lower film thickness.</p> <p>The mixing ratio and degree of curing can be controlled by measuring the hardness of the coating (Shore A method). At a temperature of +23°C a hardness of minimum 85 Shore A should be reached after 1 hour.</p>
Application conditions	<p>The surface which is to be coated must be dry and the substrate free of any moisture content. During the application and drying period, the temperature of the ambient air and the surface shall be above -18°C and below +50°C. The relative air humidity below 85%. The temperature of the surface to be treated must be at least +3°C above the dew point of the ambient air.</p> <p>The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.</p>

Drying time	+23 °C / 50% RH and approx. 2 mm thickness	
- dust free	Approx. 120 s	
- fully cured	Approx. 1 day	
	Shore A:	
	1 hour ~ 90	
	24 hours ~ 90	
Overcoatable	TEKNOBLADE 9000-40	
	Surface temperature	
		Minimum
		Maximum
	+8 °C	6 min.
	+23 °C	2 min.
	+30 °C	1 min.
		24 h

HEALTH AND SAFETY

Safety and precaution measures See safety data sheet.

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