Technical Data Sheet

Sustakon® - ASTM

Typical characteristics

- Very good resilience
- Low moisture absorption
- High abrasion resistance

Typical industries

- Mechanical Engineering Industry
- Aerospace
- Oil and Gas
- Topside
- Subsea
- Downhole
- Pipelines

	Test method	Unit	Guideline value
General properties			
Density	ASTM D792	g / cm^3	1.24
Water Absorption	ASTM D570	%	0.5
Mechanical properties			
Tensile Strength at Yield	ASTM D638	psi	620
Flexural Strength	ASTM D790	psi	620
Flexural Modulus	ASTM D790	psi	16000
Rockwell Hardness	ASTM D785	R	107
Izod Impact, Notched	ASTM D256	ft-lb/in	18
Thermal properties			
Deflection Temperature at 1.8Mpa (264psi)	ASTM D648	°F	105
Deflection Temperature at 1.8Mpa (66psi)	ASTM D648	°F	210
Flammability, UL94		1/8 inch	HB
Compliance properties			
NSF			No

The short-term maximum application temperature only applies to very low mechanical stress for a few hours. The long-term maximum application temperature is based on the thermal ageing of plastics by oxidation, resulting in a decrease of the mechanical properties. This applies to an exposure to temperatures for at least 5.000 hours causing a 50% loss of the tensile strength from the original value (measured at room temperature). This value says nothing about the mechanical strength of the material at high application temperatures. In case of thick-walled parts, only the surface layer is affected by oxidation from high temperatures. With the addition of antioxidants, a better protection of the surface layer is achieved. In any case, the center area of the material remains unaffected. The minimum application temperature is basically influenced by possible stress factors like impact and/or shock under application. The values stated refer to an minimum degree of impact stress. The electrical properties as stated result from measurements on natural, dry material. With other colours (in particular black) or saturated material, there may be clear differences in the electrical properties. The data stated above are

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average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. They serve as information about our products and are presented as a guide to choose from our range of materials. This, however, does not include an assurance of specific properties or the suitability for particular application purposes that are legally binding. Since the properties also depend on the dimension of the semi-finished products and the degree of crystallization (e.g. nucleating by pigments), the actual values of the properties of a particular product may differ from the indicated values.

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