Technický datový list

Sustamid® 6 oranžová

PA 6

Vlastnosti produktu

- Good toughness
- Good noise absorption properties
- Vibration damping
- High absorption of moisture of up to 3 % in standard atmosphere
- High abrasion resistance
- High mechanical strength
- Good impact strength
- good adhesive properties
- Good weldability
- Good machinability
- Good sliding properties

Typické oblasti použití

- Stavba strojů a zařízení
- Letectví a kosmonautika
- Potravinářský průmysl
- Zpracování masa, ryb a drůbeže
- Pečivo a sladkosti

	Testovací metoda	Jednotka	Orientační hodnota
Obecné vlastnosti			
Hustota	DIN EN ISO 1183-1	g / cm^3	1,14
Absorpce vody	DIN EN ISO 62	%	3,0
Hořlavost (tloušťka 3 mm / 6 mm)	UL 94		HB / HB
Mechanické vlastnosti			
Mez kluzu	DIN EN ISO 527	MPa	80
Prodloužení při přetržení	DIN EN ISO 527	%	50
Modul pružnosti v tahu	DIN EN ISO 527	MPa	3200
Vrubová houževnatost	DIN EN ISO 179	kJ / m^2	3
Tvrdost Shore	DIN EN ISO 868	scale D	82
Tepelné vlastnosti			
Teplota tání	ISO 11357-3	°C	220
Tepelná vodivost	DIN 52612-1	W / (m * K)	0,23

	Testovací metoda	Jednotka	Orientační hodnota
Tepelná kapacita	DIN 52612	kJ / (kg * K)	1,70
Koeficient lineární teplotní roztažnosti	DIN 53752	10^{-6} / K	90
Provozní teplota dlouhodobá	Průměr	°C	-40 … 85
Provozní teplota krátkodobá (max.)	Průměr	°C	160
Teplota tepelné deformace	DIN EN ISO 75, Verf. A, HDT	°C	75
Elektrické vlastnosti			
Relativní permitivita	IEC 60250		3,9
Dielektrický disipační faktor (50 Hz)	IEC 60250		0,02
Objemový odpor	DIN EN 62631-3-1	Ω * cm	10^{15}
Povrchový odpor	DIN EN 62631-3-2	Ω	10^{13}
Srovnávací sledovací index	IEC 60112		600
Dielektrická pevnost	IEC 60243	kV / mm	20

The following applies to Polyamides: Under the influence of moisture absorption, the mechanical properties change. The material becomes tougher and more resistant to impact, the modulus of elasticity declines. Depending on the environmental atmosphere, the temperature and the period of moisture absorption, only the surface layer is affected by alterations of property to a certain depth. On thick-walled parts, the center area remains unaffected. 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 data stated above are 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.