

テクニカルデータシート

Sustamid[®] 12 GF 30 natural

PA 12

製品の特徴

- 高熱たわみ温度
- 優れた吸音性
- 振動減衰性
- 高い耐摩耗性
- 高い剛性
- 優れた圧縮強度
- 高い機械的強度

製品の用途例

- 機械工学

	試験法	単位	値
一般的物性			
密度	DIN EN ISO 1183-1	g / cm ³	1,25
燃焼性 (厚み 3 mm / 6 mm)	UL 94		HB / HB
機械的物性			
引張降伏応力	DIN EN ISO 527	MPa	60
引張破壊呼び歪	DIN EN ISO 527	%	10
引張弾性率	DIN EN ISO 527	MPa	4000
ノッチ付き衝撃耐性	DIN EN ISO 179	kJ / m ²	5
ショア硬度	DIN EN ISO 868	scale D	86
熱的物性			
融点	ISO 11357-3	°C	180
熱伝導率	DIN 52612-1	W / (m * K)	0,28
熱容量	DIN 52612	kJ / (kg * K)	1,50
線膨張係数	DIN 53752	10 ⁻⁶ / K	60
使用温度 (長期)	平均値	°C	-30 ... 110
使用温度 (短期、最大)	平均値	°C	180
荷重たわみ温度	DIN EN ISO 75, Verf. A, HDT	°C	140

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

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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.



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