

## テクニカルデータシート

Sustamid<sup>®</sup> 12 natural

PA 12

## 製品の特徴

- 低吸湿性
- 非常に優れた耐ストレスクラック性
- 良好な衝撃強度
- 優れた吸音性
- 振動減衰性
- 良好な機械加工性
- 優れた接着性
- 良好な溶接性
- 優れた寸法安定性

## 製品の用途例

- エレクトロニクス
- ケミカルタンク
- 機械工学

	試験法	単位	値
<b>一般的物性</b>			
密度	DIN EN ISO 1183-1	g / cm <sup>3</sup>	1,02
吸水率	DIN EN ISO 62	%	0,8
燃焼性 (厚み 3 mm / 6 mm)	UL 94		HB / HB
<b>機械的物性</b>			
引張降伏応力	DIN EN ISO 527	MPa	50
引張破壊呼び歪	DIN EN ISO 527	%	200
引張弾性率	DIN EN ISO 527	MPa	1800
ノッチ付き衝撃耐性	DIN EN ISO 179	kJ / m <sup>2</sup>	20
シヨア硬度	DIN EN ISO 868	scale D	78
<b>熱的物性</b>			
融点	ISO 11357-3	°C	178
熱伝導率	DIN 52612-1	W / (m * K)	0,3
熱容量	DIN 52612	kJ / (kg * K)	1,70
線膨張係数	DIN 53752	10 <sup>-6</sup> / K	100
使用温度 (長期)	平均値	°C	-50 ... 80
使用温度 (短期、最大)	平均値	°C	140

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	試験法	単位	値
荷重たわみ温度	DIN EN ISO 75, Verf. A, HDT	°C	50
<b>電氣的物性</b>			
誘電率	IEC 60250		3,8
誘電正接 (50 Hz)	IEC 60250		0,04
体積固有抵抗	DIN EN 62631-3-1	$\Omega \cdot \text{cm}$	$10^{15}$
表面固有抵抗	DIN EN 62631-3-2	$\Omega$	$10^{13}$
比較トラッキング指数	IEC 60112		600
絶縁破壊電圧	IEC 60243	kV / mm	26

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.

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