CELANYL® XS3 GF60 BG 1019 (PRELIMINARY)

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Compound designed for parts with maximu mechanical requirements, typically used to replace metal due to the high stiffness and strength, stable after conditioning. It shows better creep behavior and dimensional stability vs. an equivalent PA66 grade, with lower warpage and excellent surface finish.

产品信息

树脂鉴别	(PA6I/6T+PA66)-GF60	ISO 1043
制品标识码	>(PA6I/6T+PA66)-GF60<	ISO 11469

流变性能

模塑收缩率范围, 平行	0.2 - 0.4	%	ISO 294-4, 2577
模塑收缩率范围, 垂直	0.4 - 0.6	%	ISO 294-4, 2577

机械性能

	dry/cond.		
拉伸模量	21000/-	MPa	ISO 527-1/-2
拉伸断裂应力, 5mm/min	215/-	MPa	ISO 527-1/-2
断裂伸长率, 5mm/min	2.2/-	%	ISO 527-1/-2
简支梁无缺口冲击强度, 23°C	68/-	kJ/m²	ISO 179/1eU
简支梁缺口冲击强度, 23°C	9/-	kJ/m²	ISO 179/1eA

热性能

	dry/cond.		
熔融温度, 10°C/min	260/*	°C	ISO 11357-1/-3

阻燃性能

	dry/cond.		
厚度为h时的阻燃性	HB/*	class	IEC 60695-11-10
测试用试样的厚度	3.2/*	mm	IEC 60695-11-10
UL认证	yes/*		UL 94

其它性能

	dry/cond.		
密度	1700/-	kg/m³	ISO 1183

特性

加工方法	注塑
特殊性能	热稳定, 高光泽, 特殊外观, 低翘曲

其他信息

注塑

Preprocessing

XS compounds, stored in a moisture-proof packaging, can be processed without drying; however, it is always recommended drying the product that comes from a large package (e.g. Octabin). The suggested moisture content for the process of injection molding is less than 0.15% for grades with low percentage of reinforcement; for grades with high percentage of fiber and to achieve the best surface quality, the moisture content should be lower than 0.10% .
Flame retardant grades must be processed with a maximum moisture content of 0,10%.The drying time depends on the initial moisture content and the drying conditions. Typically 4-8 hours at 80-90°C using dehumidified air (dew point of

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-20 °C) are suitable conditions for a starting moisture content of 0.20%-0.40%.

Processing

The following conditions apply to a standard injection moulding process of XS compounds. Machine temperatures: barrel 265-290 °C, nozzle and hot runners up to 300 °C (up to 290 °C products with flame retardants). Mould temperatures: 80-100 °C, (80-120 °C highly reinforced grades). Back pressure: typically 5-10 bar (hydraulic pressure). Temperatures exceeding 300 °C and long residence time could lead to degradation and brittleness of the material. In case of gas generation in the melt, please verify moisture content and processing temperatures. Usage of regrind is possible depending on the moulded part characteristics. For further details, please refer to the document 'Instructions for injection moulding' or contact our technical support team.

Postprocessing

Part moulded with XS compounds reach their final performance with a water content of about 1,0% by weight, depending on the grade. This percentage corresponds to the point of equilibrium between the rates of absorption and desorption of moisture. After moulding, in favourable environmental conditions, a part can quickly absorbs moisture up to 0,3-0,5%, while the equilibrium will be reached during its life. Post-treatments of parts may also include the annealing (80-120 °C in oven, up to four hours). This procedure can be useful to relax any internal stresses.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.
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