

FRIANYL® XS3 E GF40 V0E OR2003 (PRELIMINARY)

FRIANYL®

Compound designed for safety parts with high mechanical requirements, typically used to replace metal due to the high stiffness and strength, stable after conditioning. Combines flame retardant properties with better creep behavior and dimensional stability vs. an equivalent PA66 grade, with lower warpage and good surface finish.

Product information

Resin Identification	(PA66+PA6I/6T)-GF40FR(40)	ISO 1043
Part Marking Code	>(PA66+PA6I/6T)-GF40FR(40)<	ISO 11469
Continuous Service Temperature	120 °C	IEC 60216-1

Rheological properties

Moulding shrinkage range, parallel	0.1 - 0.4 %	ISO 294-4, 2577
Moulding shrinkage range, normal	0.4 - 0.7 %	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	14000 / 12700	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	160 / 130	MPa	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.2 / 2.5	%	ISO 527-1/-2
Charpy impact strength, 23°C	65 / 60	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	55 / 50	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	9.5 / 10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	9 / 8.7	kJ/m ²	ISO 179/1eA
Poisson's ratio	0.33 / 0.33 ^[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
FMVSS Class	SE		ISO 3795 (FMVSS 302)

Electrical properties

	dry/cond.		
Volume resistivity	>1E13 / -	Ohm.m	IEC 62631-3-1
Surface resistivity	* / >1E15	Ohm	IEC 62631-3-2
Electric strength	44 / -	kV/mm	IEC 60243-1
Comparative tracking index	600 / -		IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	0.8 / *	%	Sim. to ISO 62
Water absorption, 2mm	3.8 / *	%	Sim. to ISO 62
Density	1510 / -	kg/m ³	ISO 1183

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Characteristics

Processing	Injection Moulding
Delivery form	Granules
Additives	Flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat, High Gloss, Low Warpage, Improved creep