FAÇADE CREATIONS

Technical Specification Sheets

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Chemical Designation
PA 6 (Polyamide 6)

Colour
natural

Density
1.45 g/cm^3

Fillers
carbon fibres

Main features
- very good abrasion resistance
- very good mechanical strength

Target Industries
- automotive industry
- mechanical engineering
- oil and gas industry
- safety engineering
- sporting goods

The material is in the phase of further development. The characteristic values of this product may change.

General material information	*parameter*	*value*	*unit*	*norm*		*comment*
Fibre type		Carbon HT 3k		-		
Fibre architecture		Twill 2/2		-		
Fibre areal weight		200	g/m²	-		
Fibre volume content		50	%	-		
Resin weight content		39.1	%	-		
Areal weight finished product		328	g/m²	-		
Material widths		1270	mm	-		
ply thickness (consolidated)		0.23	mm	-		

Mechanical properties	*parameter*	*value*	*unit*	*norm*		*comment*
Tensile strength		620	MPa	ISO 527-4	1)	(1) measured on pressed plate (2) measured on pressed plate (3) measured on pressed plate (4) measured on pressed plate
Modulus of elasticity (tensile test)		52000	MPa	ISO 527-4	2)	
Flexural strength		790	MPa	ISO 14125	3)	
Modulus of elasticity (flexural test)		56000	MPa	ISO 14125	4)	

Thermal properties	*parameter*	*value*	*unit*	*norm*		*comment*
Glass transition temperature		49	°C	DIN EN ISO 11357		(1) approximate value
Melting temperature		218	°C	DIN EN ISO 11357		
Service temperature	short term	180	°C	-		
Service temperature	long term	100	°C	-		
Thermal expansion (CLTE)	in 0° and 90° direction	3	10^{-6} K^{-1}	-	1)	

Predrying	*parameter*	*value*	*unit*	*norm*	*comment*
Drying temperature		80	°C	-	
Drying time		6-8	h	-	