FAÇADE CREATIONS

Technical Specification Sheets

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Chemical Designation
PA 6 (Polyamide 6)

Colour
blue grey opaque

Density
1.24 g/cm^3

Fillers
detectable filler

Data generated directly after machining (standard climate Germany).

Main features
- high toughness
- resistant to many oils, greases and fuels
- electrically insulating
- good wear properties
- good weldable and bondable
- good slide and wear properties
- high strength
- good machinability

Target Industries
- electronics
- food technology
- mechanical engineering

Mechanical properties	parameter	value	unit	norm		comment
Tensile strength	50mm/min	80	MPa	DIN EN ISO 527-2		(1) For tensile test: specimen type 1b (2) For Charpy test: support span 64mm, norm specimen. n.b. = not broken
Modulus of elasticity (tensile test)	1mm/min	3600	MPa	DIN EN ISO 527-2	1)	
Tensile strength at yield	50mm/min	80	MPa	DIN EN ISO 527-2		
Elongation at yield (tensile test)	50mm/min	4	%	DIN EN ISO 527-2		
Elongation at break (tensile test)	50mm/min	21	%	DIN EN ISO 527-2		
Impact strength (Charpy)	max. 7,5J	n.b.	kJ/m^2	DIN EN ISO 179-1eU	2)	
Notched impact strength (Charpy)	max. 7,5J	4	kJ/m^2	DIN EN ISO 179-1eA		
Shore hardness	D	81		DIN EN ISO 868		

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		45	°C	DIN EN ISO 11357	1)	(1) Found in public sources. (2) Found in public sources. Individual testing regarding application conditions is mandatory.
Melting temperature		220	°C	DIN EN ISO 11357		
Service temperature	short term	160	°C		2)	
Service temperature	long term	100	°C			

Electrical properties	parameter	value	unit	norm		comment
surface resistivity	Silver electrode, 23°C, 12% r.h.	> 10^{13}	Ω	-	1)	(1) Specimen in 20mm thickness

Other properties	parameter	value	unit	norm		comment
Water absorption	24h / 96h (23°C)	0.3 / 0.6	%	DIN EN ISO 62	1)	(1) Ø ca. 50mm, h=13mm (2) (+) limited resistance (3) - poor resistance (4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
Resistance to hot water/ bases		(+)		-	2)	
Resistance to weathering		-		-	3)	
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	4)	