FAÇADE CREATIONS

Technical Specification Sheets

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Chemical Designation
PA 66 (Polyamide 66)

Colour
black opaque

Density
1.61 g/cm^3

Fillers
glass fibres

Data generated directly after machining (standard climate Germany).

Main features
- good heat deflection temperature
- high thermal and mechanical capacity
- resistant to many oils, greases and fuels
- high dimensional stability
- high fatigue strength
- good machinability
- very high strength
- very high creep resistant

Target Industries
- mechanical engineering
- automotive industry
- electronics

Mechanical properties	*parameter*	*value*	*unit*	*norm*		*comment*
Tensile strength	50mm/min	115	MPa	DIN EN ISO 527-2		(1) For tensile test: specimen type 1b (2) For flexural test: support span 64mm, norm specimen. (3) Specimen 10x10x10mm (4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
Modulus of elasticity (tensile test)	1mm/min	8700	MPa	DIN EN ISO 527-2	1)	
Tensile strength at yield	50mm/min	115	MPa	DIN EN ISO 527-2		
Elongation at yield (tensile test)	50mm/min	2	%	DIN EN ISO 527-2		
Elongation at break (tensile test)	50mm/min	2	%	DIN EN ISO 527-2		
Flexural strength	2mm/min, 10 N	200	MPa	DIN EN ISO 178	2)	
Modulus of elasticity (flexural test)	2mm/min, 10 N	9000	MPa	DIN EN ISO 178		
Compression strength	1% / 2% / 5% 5mm/min, 10 N	28/56/141	MPa	EN ISO 604	3)	
Compression modulus	5mm/min, 10 N	6200	MPa	EN ISO 604	4)	
Shore hardness	D	90		DIN EN ISO 868		

Thermal properties	*parameter*	*value*	*unit*	*norm*		*comment*
Glass transition temperature		78	°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		256	°C	DIN EN ISO 11357		
Service temperature	short term	200	°C		2)	
Service temperature	long term	130	°C			
Thermal expansion (CLTE)	23-60°C, long.	4	10^{-5} K^{-1}	DIN EN ISO 11359-1;2		
Thermal expansion (CLTE)	23-100°C, long.	5	10^{-5} K^{-1}	DIN EN ISO 11359-1;2		

Electrical properties	*parameter*	*value*	*unit*	*norm*		*comment*
surface resistivity		10^{14}	Ω	-		(1) Due to the black colourant and moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
volume resistivity		10^{14}	Ω*cm	-	1)	

Other properties	*parameter*	*value*	*unit*	*norm*		*comment*
Water absorption	24h / 96h (23°C)	0.1 / 0.2	%	DIN EN ISO 62	1)	(1) Ø ca. 50mm, h=13mm (2) - poor resistance (3) (+) limited 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)	listed (value at 0.85mm)	HB		DIN IEC 60695-11-10;	4)	