FAÇADE CREATIONS

Technical Specification Sheets

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Chemical Designation
PPS (Polyphenylensulfide)

Colour
black

Density
1.5 g/cm^3

Fillers
carbon fibres, graphite, PTFE

Main features
- good slide and wear properties
- very good chemical resistance
- high dimensional stability
- high stiffness
- high creep resistance
- high heat deflection temperature
- inherent flame retardant
- for injection moulding

Target Industries
- automotive industry
- mechanical engineering

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength		134	MPa	DIN EN ISO 527-1	
Modulus of elasticity (tensile test)		14100	MPa	DIN EN ISO 527-1	
Elongation at break (tensile test)		1,2	%	DIN EN ISO 527-1	
Impact strength (Charpy)		17	kJ/m^2	DIN EN ISO 179-1eU	

Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		90	°C	- 1)	(1) literature value (2) literature value (3) literature value (4) literature value
Melting temperature		280	°C	- 2)	
Heat distortion temperature		270	°C	ISO-R 75 Method A	
Service temperature	short term	260	°C	- 3)	
Service temperature	long term	230	°C	- 4)	

Electrical properties	parameter	value	unit	norm	comment
surface resistivity		10^6	Ω	DIN EN 61340-2-3	
volume resistivity		10^5	Ω*cm	DIN EN 61340-2-3	

Other properties	parameter	value	unit	norm	comment
Water absorption	23 °C / 50 % relative humidity up to saturation	< 0,1	%	DIN EN ISO 62	
Molding shrinkage	longitudinal	0,2	%	DIN EN ISO 294-4	
Molding shrinkage	transverse	0,8	%	DIN EN ISO 294-4	

Processing parameter	parameter	value	unit	norm	comment
processing temperatures		300 - 340	°C	-	
Mould temperature		135 - 155	°C	-	

- This material can be processed as a thermoplastic taking the normal technical provisions into account. The above mentioned information refers exclusively to the injection moulding process.
- Processing should be carried out as gently as possible, in order to maintain the maximum fibre length in the component. Back pressure and injection rate should be adjusted to the component geometry accordingly. The optimum processing temperature depends upon the respective geometry of the moulded part and can be different from machine to machine.

Predrying	parameter	value	unit	norm	comment
Permissible residual moisture content		< 0,05	%	-	
Drying temperature		140 - 150	°C	-	
Drying time		2 - 4	h	-	