Technical Specification Sheets

T: +44 (0) 116 289 3343 E: info@facadecreations.co.uk W: www.facadecreations.co.uk
Registered Office Address: 124 City Road, London, England, EC1V 2NX. Registered in England, Company Number: 16267073

Chemical Designation
PPSU (Polyphenylsulfone)

Colour
orange opaque

Density
1.3 g/cm^3

Main features
- high thermal and mechanical capacity
- good heat deflection temperature
- hydrolysis and superheated steam resistant
- good impact strength
- high stiffness
- high strength
- good chemical resistance
- high gamma radiation resistance

Target Industries
- medical technology
- mechanical engineering
- vacuum technology
- automotive industry

Mechanical properties	parameter	value	unit	norm		comment
Tensile strength	50mm/min	84	MPa	DIN EN ISO 527-2		(1) For tensile test: specimen type 1b (2) For flexural test: support span 64mm, norm specimen. (3) For Charpy test: support span 64mm, norm specimen. n.b. = not broken (4) Specimen in 4mm thickness
Modulus of elasticity (tensile test)	1mm/min	2400	MPa	DIN EN ISO 527-2	1)	
Tensile strength at yield	50mm/min	84	MPa	DIN EN ISO 527-2		
Elongation at yield (tensile test)	50mm/min	7.6	%	DIN EN ISO 527-2		
Elongation at break (tensile test)	50mm/min	> 50	%	DIN EN ISO 527-2		
Flexural strength	2mm/min, 10 N	105	MPa	DIN EN ISO 178	2)	
Modulus of elasticity (flexural test)	2mm/min, 10 N	2200	MPa	DIN EN ISO 178		
Impact strength (Charpy)	max. 7,5J	n.b.	kJ/m^2	DIN EN ISO 179-1eU	3)	
Notched impact strength (Charpy)	max. 7,5J	12	kJ/m^2	DIN EN ISO 179-1eA		
Ball indentation hardness		137	MPa	ISO 2039-1	4)	

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		218	°C	DIN EN ISO 11357	1)	(1) Found in public sources. (2) n.a. = not applicable (3) Found in public sources. Individual testing regarding application conditions is mandatory.
Melting temperature		n.a.	°C	DIN EN ISO 11357	2)	
Service temperature	short term	190	°C		3)	
Service temperature	long term	170	°C			

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) + good resistance
Resistance to hot water/ bases		+		-	2)	
Flammability (UL94)	listed (value at 0.79mm)	V0		DIN IEC 60695-11-10;		