TECASON P MT XRO blue - Stock Shapes (rods, plates, tubes)

Chemical Designation
PPSU (Polyphenylsulfone)

Colour
blue opaque

Density
1.35 g/cm^3

Fillers
barium sulfate

Main features
- x-ray opaque
- high thermal and mechanical capacity
- hydrolysis and superheated steam resistant
- good impact strength
- high stiffness
- high strength
- good chemical resistance
- high gamma radiation resistance

Target Industries
- medical technology

Mechanical properties	parameter	value	unit	norm		comment
Tensile strength	50mm/min	79	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
Modulus of elasticity (tensile test)	1mm/min	2400	MPa	DIN EN ISO 527-2	1)	
Tensile strength at yield	50mm/min	79	MPa	DIN EN ISO 527-2		
Elongation at yield (tensile test)	50mm/min	7	%	DIN EN ISO 527-2		
Elongation at break (tensile test)	50mm/min	> 50	%	DIN EN ISO 527-2		
Flexural strength	2mm/min, 10 N	104	MPa	DIN EN ISO 178	2)	
Modulus of elasticity (flexural test)	2mm/min, 10 N	2400	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		
Shore hardness	D	84		DIN EN ISO 868		

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		218	°C	DIN EN ISO 11357	1)	(1) Found in public sources. (2) Found in public sources. Individual testing regarding application conditions is mandatory.
Service temperature	short term	190	°C		2)	
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 (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	V0		DIN IEC 60695-11-10;	4)	

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