TECASINT 8001 yellow-brown - Stock Shapes (rods, plates, tubes)

Chemical Designation
PTFE (Polytetrafluorethylene)

Colour
ochre-brown

Density
1.88 g/cm^3

Fillers
20% polyimide

Main features
- very good slide and wear properties
- anti adhesive
- very good electrical insulation
- high toughness
- very good UV and weather resistance
- good chemical resistance
- sensitive to hydrolysis in higher thermal range

Target Industries
- cryogenic engineering
- electrical engineering
- food engineering
- fixture construction
- medical technology
- textile industry

Mechanical properties	parameter	value	unit	norm		comment
Tensile strength	50 mm/min	15	MPa	DIN EN ISO 527-1		
Shore hardness	Shore D	65		DIN EN ISO 868		

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		- 20	°C	DIN EN ISO 11357		(1) Found in public sources. Individual testing regarding application conditions is mandatory. (2) Thermal expansion XY/Z axis
Service temperature	long-term	250	°C	-	1)	
Thermal expansion (CLTE)	50-200°C	14.4 / -	10^{-5} K $^{-1}$	DIN 53 752	2)	
Specific heat		1	J/(g*K)	-		
Thermal conductivity	40°C	0.25	W/(K*m)	ISO 8302		

Electrical properties	parameter	value	unit	norm		comment
volume resistivity	23°C	10^{18}	Ω*cm	DIN IEC 60093		
Dielectric constant	10 kHz	2.3		DIN IEC 60250		

Other properties	parameter	value	unit	norm		comment
Water absorption	24 h in water, 23°C	0.70	%	DIN EN ISO 62		(1) 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.
Flammability (UL94)	corresponding to	V0		DIN IEC 60695-11-10;	1)	

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