TECAFORM AH TF10 blue - Stock Shapes (rods, plates, tubes)

Chemical Designation
POM-C (Polyacetal (Copolymer))

Colour
blue opaque

Density
1.46 g/cm^3

Fillers
10% PTFE

Main features
→ resistent to cleaning agents
→ high toughness
→ very good electrical insulation
→ good machinability
→ good slide and wear properties
→ difficult to bond

Target Industries
→ mechanical engineering
→ automotive industry
→ electronics
→ food technology

Mechanical properties	parameter	value	unit	norm		comment
Tensile strength	50mm/min	57	MPa	DIN EN ISO 527-2		(1) For tensile test: specimen type 1b
Modulus of elasticity (tensile test)	1mm/min	2900	MPa	DIN EN ISO 527-2	1)	(2) For flexural test: support span 64mm, norm specimen.
Tensile strength at yield	50mm/min	57	MPa	DIN EN ISO 527-2		(3) Specimen 10x10x10mm
Elongation at yield (tensile test)	50mm/min	11	%	DIN EN ISO 527-2		(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
Elongation at break (tensile test)	50mm/min	15	%	DIN EN ISO 527-2		(5) For Charpy test: support span 64mm, norm specimen.
Flexural strength	2mm/min, 10 N	82	MPa	DIN EN ISO 178	2)	(6) Specimen in 4mm thickness
Modulus of elasticity (flexural test)	2mm/min, 10 N	2700	MPa	DIN EN ISO 178		
Compression strength	1% / 2% 5mm/min, 10 N	15 / 30	MPa	EN ISO 604	3)	
Compression modulus	5mm/min, 10 N	2300	MPa	EN ISO 604	4)	
Impact strength (Charpy)	max. 7,5J	56	kJ/m^2	DIN EN ISO 179-1eU	5)	
Notched impact strength (Charpy)	max. 2J	4	kJ/m^2	DIN EN ISO 179-1eA		
Ball indentation hardness		141	MPa	ISO 2039-1	6)	

Thermal properties	parameter	value	unit	norm		comment
Glass transition temperature		-60	°C	DIN EN ISO 11357	1)	(1) Found in public sources.
Melting temperature		168	°C	DIN EN ISO 11357		(2) Found in public sources. Individual testing regarding application conditions is mandatory.
Service temperature	short term	140	°C		2)	
Service temperature	long term	100	°C			

Electrical properties	parameter	value	unit	norm		comment
surface resistivity	Silver electrode, 23°C, 12% r.h.	10^{14}	Ω	-	1)	(1) Specimen in 20mm thickness
volume resistivity	Silver electrode, 23°C, 12% r.h.	10^{13}	Ω*cm	-		

Other properties	parameter	value	unit	norm		comment
Water absorption	24h / 96h (23°C)	0.05 / 0.1	%	DIN EN ISO 62	1)	(1) Ø ca. 50mm, h=13mm
Resistance to hot water/ bases		(+)		-	2)	(2) (+) limited resistance
Resistance to weathering		-		-	3)	(3) - poor resistance
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	4)	(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.

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