

Additional Data/Spec Sheet

Clear Polycarbonate Tube | 12mm OD | 9mm ID

MECHANICAL PROPERTIES	VALUE	UNIT	PARAMETER	NORM
Tensile strength	69	MPa	50mm/min	DIN EN ISO 527-2
Tensile strength at yield	69	MPa	50mm/min	DIN EN ISO 527-2
Elongation at yield	6	%	50mm/min	DIN EN ISO 527-2
Elongation at break	90	%	50mm/min	DIN EN ISO 527-2
Flexural strength	97	MPa	2mm/min, 10 N	DIN EN ISO 178
Modulus of elasticity (flexural test)	2300	MPa	2mm/min, 10 N	DIN EN ISO 178
Compression strength	16/29/64	MPa	1% / 2% / 5%	EN ISO 604
Compression modulus	2000	MPa	5mm/min, 10 N	EN ISO 604
Impact strength (Charpy)	n.b.	kJ/m ²	max. 7,5J	DIN EN ISO 179-1eU
Notched impact strength (Charpy)	14	kJ/m ²	max. 7,5J	DIN EN ISO 179-1eA
Ball indentation hardness	128	MPa		ISO 2039-1
Modulus of elasticity (tensile test)	2200	MPa	1mm/min	DIN EN ISO 527-2
THERMAL PROPERTIES	VALUE	UNIT	PARAMETER	NORM
Melting temperature	n.a.	C		DIN EN ISO 11357
Service temperature	140	C	short term	NN
Service temperature	120	C	long term	NN
Thermal expansion (CLTE)	8	10 ⁻⁵ *1/K	23-60°C, long.	DIN EN ISO 11359-1;2
Thermal expansion (CLTE)	8	10 ⁻⁵ *1/K	23-100°C, long.	DIN EN ISO 11359-1;2
Glass transition temperature	149	C		DIN EN ISO 11357
Thermal conductivity	0.25	W/(k*m)		ISO 22007-4:2008
Specific heat	1.3	J/(g*K)		ISO 22007-4:2008

ELECTRICAL PROPERTIES	VALUE	UNIT	PARAMETER	NORM
surface resistivity	10 ¹⁴	Ω		DIN IEC 60093
volume resistivity	10 ¹⁴	Ω*cm		DIN IEC 60093
OTHER PROPERTIES	VALUE	UNIT	PARAMETER	NORM
Resistance to hot water/ bases	-	-		-
Resistance to weathering	(+)	-		-
Flammability (UL94)	HB	-	listed (value at 0.4 and 1.5 mm)	DIN IEC 60695-11-10;
Water absorption	0.06	%	24h / 96h (23°C)	DIN EN ISO 62