



Texin® RxT50D

TPU

Covestro Deutschland AG

Rheological properties	Value	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.8	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8	%	ISO 294-4, 2577
Melt Flow Index, MFI	5	g/10min	ISO 1133
MFI temperature	200	°C	-
MFI load	8.7	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Flexural Modulus (23°C)	114	MPa	ISO 178
Stress at 100% Elongation	14.5	MPa	ISO 527
Stress at 300% Elongation	27.6	MPa	ISO 527
Tear strength	131	kN/m	ISO 34-1
Shore Hardness D (15s)	50	-	ISO 868
Tensile Strength	49	MPa	ISO 37
Strain at Break	480	%	ISO 37

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature A	128	°C	ISO 306

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1150	kg/m³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	93 - 104	°C	-
Pre-drying - Time	≥2	h	-
Processing humidity	≤0.03	%	-
Melt temperature	202 - 213	°C	-
Mold temperature	16 - 38	°C	-
Zone 1	196 - 207	°C	-
Zone 2	199 - 210	°C	-
Zone 3	199 - 210	°C	-
Nozzle temperature	202 - 213	°C	-
Screw speed	40 - 80	rpm	-
Injection pressure	41.4 - 103	MPa	-
Back pressure	≤5.5	MPa	-
Holding pressure	24.8 - 82.7	MPa	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Pre-drying - Temperature	93 - 104	°C	-
Pre-drying - Time	≥2	h	-
Processing humidity	≤0.03	%	-
Melt temperature	199 - 213	°C	-
Feed temperature	182 - 196	°C	-
Zone 1	193 - 207	°C	-
Zone 2	193 - 207	°C	-
Nozzle temperature	193 - 213	°C	-

Characteristics

Processing

Injection Molding, Film Extrusion, Profile Extrusion, Other Extrusion, Blow Molding, Pipe/Tube Extrusion

Delivery form

Natural Color

Chemical Resistance

Hydrolysis, Radiation Resistance

Certifications

Medical, Biocompatibility ISO 10993, Food approval, Food Contact (FDA)

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Special Characteristics

Impact modified, Heat aging stabilized, Sterilizable, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Applications

Medical