

TPX™ MBZ230(A)

Mitsui Chemicals America, Inc. - *Polymethylpentene Copolymer*
General Information
General

Material Status	• Commercial: Active
Availability	• North America
Appearance	• Opaque
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.10		Internal Method
Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)	57	g/10 min	Internal Method
Spiral Flow ²	18.9	in	Internal Method
Molding Shrinkage - Flow ³ (0.0787 in)	0.015	in/in	Internal Method
Molding Shrinkage - Across Flow ³ (0.0787 in)	0.011	in/in	Internal Method
Water Absorption (Saturation)	0.040	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ⁴ (73°F, Injection Molded)	326000	psi	ASTM D638
Tensile Strength ⁴ (Yield, 73°F, Injection Molded)	3920	psi	ASTM D638
Tensile Strength ⁴ (Break, 73°F, Injection Molded)	3770	psi	ASTM D638
Tensile Elongation ⁴ (Break, 73°F, Injection Molded)	20	%	ASTM D638
Flexural Modulus ⁵ (0.126 in, Injection Molded, 2.01 in Span)	264000	psi	ASTM D790
Flexural Strength ⁵ (0.126 in, Injection Molded, 2.01 in Span)	5800	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (Injection Molded)	1.9	ft-lb/in	ASTM D256
Unnotched Izod Impact ⁶ (73°F, Injection Molded)	1.0	ft-lb/in	ASTM D4812
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	84		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ⁷ (66 psi, Unannealed, 0.250 in)	293	°F	ASTM D648
Vicat Softening Temperature	324	°F	ASTM D1525 ⁸
Peak Crystallization Temperature (DSC)	451	°F	ASTM D3418
CLTE - Flow (14 to 320°F)	7.1E-5	in/in/°F	Internal Method
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity ⁹ (0.0787 in)	> 1.0E+16	ohms·cm	ASTM D257
Dielectric Strength ⁹ (0.0787 in)	710	V/mil	ASTM D149
Dielectric Constant ⁹ (0.0787 in, 1 MHz)	2.38		ASTM D150

Processing Information

Injection	Nominal Value	Unit
Rear Temperature	518	°F
Middle Temperature	536	°F
Front Temperature	572	°F
Mold Temperature	68 to 140	°F
Injection Pressure	4350 to 5800	psi
Holding Pressure	4350	psi



Injection Notes		
Zone 4 Temperature: 300°C		
Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	536	°F
Cylinder Zone 2 Temp.	554	°F
Cylinder Zone 3 Temp.	554	°F
Cylinder Zone 4 Temp.	554	°F
Adapter Temperature	554	°F
Die Temperature	554	°F

Notes

¹ Typical properties: these are not to be construed as specifications.

² Mold Temperature: 163°F, Melt Temperature: 590°F

³ 260 to 280°C

⁴ Type IV, 2.0 in/min

⁵ 0.051 in/min

⁶ Partial Break

⁷ 120°C/hr

⁸ Rate A (50°C/h), Loading 1 (10 N)

⁹ Injection Molded

