LASER SINTERING MATERIAL SPECIFICATIONS





TPE 410

ELASTOMERS

TPE 410 is designed for a variety of different applications which require a strong durable yet flexible material. It's ideal for short series production work for elastic parts that will see a variety of applications.

HIGHLIGHTS

- → High impact resistance at lower temperatures
- → Excellent processability without the requirement of pretreatment
- → Material is soft to the touch
- → Low energy loss in a wide variety of temperature ranges

APPLICATIONS

- → Footwear
- → Sports equipment including hockey and football helmets
- → Seating applications
- → Automotive



HEADQUARTERS

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TYPICAL PHYSICAL PROPERTIES			
PROPERTY	TEST METHOD	IMPERIAL	METRIC
Color/Appearance	Visual	White	White
Bulk Density	ASTM D1895	0.014 PCI	0.4 g/cc
Average Particle size (d50)	Laser Diffraction	0.003 in	70 µm
Particle Size Range (d10-d90)	Laser Diffraction	0.001-0.004 in	35-105 µm
Melt Flow Rate	MFR - 195°C, 2.16kg, 180s	0.42-0.63 oz/10 min	12-18 g/10 min
Melt Temperature	ASTM D3418	275 °F	135 °C
Sintered Color/ Appearance	Visual	Off-White	Off-White
Sintered Density	ASTM D792	0.025-0.035 PCI	0.7-0.96 g/cc
Tensile Strength X	ASTM D638	5801.52 psi	40 MPa
Tensile Modulus X	ASTM D638	5801.52 psi	40 MPa
Elongation at Break X	ASTM D638	800%	800%
Elongation at Yield X	ASTM D638	800%	800%
Tensile Strength Y	ASTM D638	1015.266 PSI	7 MPa
Tensile Modulus Y	ASTM D638	5801.52 PSI	40 MPa
Elongation at Break Y	ASTM D638	800%	800%
Elongation at Yield Y	ASTM D638	800%	800%

The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change without notice.