



Technical Data Sheet & MSDS Information

Part Name	PETG – Copolymer Resin
S&R Part number	42400
Process	Plastic Extrusion
Colour	Clear
Applications	An extremely high melt strength makes the resin an excellent choice when extruding profiles into complicated shapes. In addition to profile extrusion it is an also excellent choice for extrusion of rigid tubing.
Standard	This product meets the biocompatibility requirements under FDA/ISO 10993 and USP Class 6, Plastics.

General Properties^a	Test Method^b	Typical Value Units^c
Density	D 792	1.27 g/cm ³

Mechanical Properties	Test Method	Typical Value Units
Tensile Stress @ Yield	D 638	50 MPa (7300 psi)
Tensile Stress @ Break	D 638	29 MPa (4200 psi)
Elongation @ Yield	D 638	4 %
Elongation @ Break	D638	109 %
Flexural Modulus	D 790	2200 MPa (3.2 x 10 ⁵ psi)
Rockwell Hardness, R Scale	D 785	106
Izod Impact Strength, Notched^d @ 23°C (73°F)	D 256	94 (9C/1NB) J/m (1.8 (9C/1NB) ft·lbf/in.)
@ -40°C (-40°F)	D 256	52C J/m (1.0C ft·lbf/in.)

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Impact Strength, Unnotched^e		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB
Impact Resistance (Puncture), Energy @ Max. Load^f		
@ 0°C (32°F)	D 3763	37 J (27 ft-lbf)
@ 23°C (73°F)	D 3763	33 J (24 ft-lbf)
@ -40°C (-40°F)	D 3763	41 J (30 ft-lbf)

Optical Properties	Test Methods	Typical Value Units
Haze	D 1003	0.6 %
Regular Transmittance	D 1003	88 %
Total Transmittance	D 1003	90 %
Gloss @ 60°	D 2457	171
Colour b* CIELAB, Illuminant D6500, 10° Observer	D 2244	0.61

Thermal Properties	Test Method	Typical Value Units
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	67 °C (153 °F)
@ 1.82 MPa (264 psi)	D 648	62 °C (144 °F)
Vicat Softening Temperature		
@ 1 kg load	D 1525	79 °C (174 °F)

^a Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^b Unless noted otherwise, the test method is ASTM.

^c Units are in SI or US customary units.

^d Testing conducted using 10 standard flex bars with 20 mil notch; C = complete break; NB = non-break.

^e Non-break as defined by ASTM D 4812.

^f Testing conducted using 10 standard 4" x 4" x 0.125" thick injection molded plaques; 100% ductile break



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MSDS Information

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200 articles do not require a MSDS / SDS.

Articles are defined by:

An "article" means a manufactured item: (1) which is formed to a specific shape or design during manufacture (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (3) which does not release, or otherwise result in exposure to, a [hazardous chemical](#) under normal conditions of use. Any product which meets the definition of an "article," would be exempt from the requirements of the Standard.

Sinclair & Rush Ltd consider all finished parts as "articles" and as such they do not require an accompanying MSDS / SDS.

If you require a MSDS for the materials within the articles please contact osbma@sinclair-rush.co.uk