

NEUSoft™ NEUSoft 597 Ether 50 Thermoplastic Polyurethane Elastomer

Key Characteristics

Product Description	
NEUSoft is a translucent polyether urethane based material with good elasticity, vibration dampening, abrasion and tear resistance. This series of polyurethanes are chemically resistant to hydrolysis and suitable for overmolding.	
General	
Material Status	• Commercial: Active
Regional Availability	• North America
Features	• Excellent Elastic Recovery • Good Chemical Resistance • Good Processability • Good Abrasion Resistance • Good Flexibility • Soft
Uses	• Medical/Healthcare Applications • Overmolding • Tubing
Agency Ratings	• ISO 10993 Part 4 ¹ • ISO 10993 Part 5 ¹ • USP Class VI
Forms	• Pellets
Processing Method	• Extrusion

Technical Properties²

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.01	1.01	ASTM D792
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (100% Strain)	302 psi	2.08 MPa	ASTM D412
Tensile Strength (Break)	3000 psi	20.7 MPa	ASTM D412
Tensile Elongation (Break)	850 %	850 %	ASTM D412
Tear Strength	246 lbf/in	43.1 kN/m	ASTM D624
Compression Set	33 %	33 %	ASTM D395
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	62	62	ASTM D2240

Notes

¹ *Testing completed on compounded material only.

² Typical values are not to be construed as specifications.

CONTACT INFORMATION**Americas**

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions.™

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

Copyright © 2015, NEU Specialty Engineered Materials, LLC. NEU makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. NEU makes no warranties or guarantees respecting suitability of either NEU's products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product. NEU MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.