



PolyOne[™]

Engineered Materials

Providing custom compounded
solutions for the healthcare industry

The PolyOne Difference

PolyOne delivers value to its healthcare customers by helping them to **manage risk**, **accelerate speed to market**, and **provide targeted product performance**. PolyOne Trilliant™ materials are high-performance polymers developed to meet the regulatory and performance requirements of the healthcare industry. NEU™ Specialty Materials offers highly specialized custom-compounded solutions for the healthcare industry.

Trilliant™ Structurally Reinforced Materials

High structural strength, reinforced materials created from a broad spectrum of base materials

- Base materials from PP to PEEK
- USP Class VI grades available

Trilliant™ Antimicrobial Materials

Engineered materials protected by WithStand™ Antimicrobial Technology

- Organic and inorganic EPA-approved solutions
- Wide range of resin family compatibility including: PE, PP, PC, PVC, PS acetal, ABS and more

Trilliant™ Electrically Conductive Materials

Balancing conductivity, flow and dimensional stability

- High strength materials coupled with consistent conductivity
- Superior durability and easy processing

Trilliant™ Sustainable Solutions



- **Radiation Shielding** – Polymer-metal composites offering an alternative to lead with specific gravities between 1.5–11
- **BPA-Free** – Clear, tough compounds offering an alternative to BPA



Specialty Compounded Materials

Specialty compounded thermoplastic materials for healthcare

- Radiopacifiers
- Stabilizers
- Surface modifiers
- Antimicrobial
- Precolored compounds
- Small lot capabilities for R&D and production

Neuthane™ N Series Compounds

Blend of aromatic, polyether or polyester-based TPUs with good clarity and excellent elongation

NeuSoft™ Compounds

Polyether or polyester-based TPU blends suitable for overmolding

Base	Hardness	Tensile Strength (Break)	Elongation (Break)	
	Shore A	(psi)	%	
NeuSoft™				
596-50	TPU	62	2300	532
596-60	TPU	74	3310	823
597-50	TPU	55	2020	351
597-60	TPU	60	2280	423
Neuthane™				
N8511-1H	TPU	65	2600	809

PolyOne Healthcare Solutions

The material grades highlighted below represent the broad range of properties available within our Trilliant™ engineered materials portfolio. PolyOne will work with you to create the custom solution for your performance needs.

Key Features

- USP Class VI and ISO 10993 materials
- FDA cGMP manufacturing facilities
- Pre-color, small lot capabilities
- Formulation lockdown available

	General Properties				Mechanical Properties			Impact		Thermal		Regulatory	Sterilization	
	Base	Specific Gravity	Molding Shrinkage Transverse	Molding Shrinkage Linear	Tensile Strength (Break)		Elongation (Break)	Notched Izod Impact		Deflection Temperature Under Load		USP Class VI	Steam	EtOH
		English/SI	English (in/in)	English (in/in)	English (psi)	SI (MPa)	English/SI (%)	English (ft-lb/in)	SI (J/m)	English (°F)	SI (°C)			
HC6620-0033 RS Natural	Nylon 6,6	1.40	0.017	0.003	27,500	190	12	2.1	112	>473	>245	X	X	X
HC5220-0040 RS Natural	PP	1.22	0.014	0.001	8,400	58	1	0.8	43	>311	>155	X	X	X
HC3220-0030 RS Natural	PC	1.41	0.011	0.001	17,000	117	9	2.3	122	>289	>143	X	X	X
HC3320-0020 RS Natural	PBT	1.46	0.018	0.004	14,000	96	9	0.9	48	>424	>218	X	X	X
HC3620-0040 RS Natural	PC/PBT	1.20	0.007	0.007	6,300	43	100	13	689	>176	>80	X	X	X
HC9820-0030 RS Natural	PEEK	1.51	0.011	0.003	25,600	176	9	2.2	117	>473	>245	X	X	X
HC5410-0030 RS Natural	HDPE	1.18		0.003	6,000	41	4	1.5	80	240*	116*			
HC3200-0020 C Natural	PP	1.05		0.008–0.012	3,600	25	60	1.1	58	244	118		X	X
HC3200-0040 C Natural	PP	1.23		0.004–0.008	3,400	23	25	0.5	27	264	129		X	X
HC6000-0011 XR Natural	Nylon 6	11.3			7,400	51	1						X	X
THC-02 1200 IL Natural	Nylon 6,6	1.14	0.036	0.021				1.7	91	180 ^a	82 ^a		X	X
X THC 1100 Natural	Co-polyester	1.16	0.003	0.006	5,300	37	74	18	960	203 [^]	95 [^]			X
X THC 1101 Natural	Co-polyester	1.13	0.005	0.006	3,400	23	40	16	850	201 [^]	94 [^]			X

Testing Methods

Specific Gravity: ASTM D792
 Notched Izod Impact: ASTM D256A (73°F, 0.250in)
 Tensile Strength & Elongation: ASTM D638
 Molding Shrinkage: ASTM D955
 Hardness: ASTM D2240
 Deflection Temperature Under Load: ASTM D648 (66 psi, Annealed, 0.125in)
 *264 psi, Annealed, 0.125in
^a264 psi, Unannealed
[^]66 psi, Unannealed

Our Pledge to You

At PolyOne, we are committed to helping you grow your business with safe and environmentally sound solutions. This commitment is exemplified by our **No Surprises PledgeSM**, which we make to all customers and markets across the globe.

- ✓ You can be confident that, in formulating and manufacturing our materials, we use sustainable practices to provide long-term product viability and sound environmental stewardship.
- ✓ You can expect that the materials we produce contain only ingredients that conform to accepted legal and regulatory compliance guidelines.
- ✓ You can trust that PolyOne materials meet the rigorous quality and safety management standards required across the globe.
- ✓ You can be certain that PolyOne meets or exceeds the material safety data reporting requirements of your country or region.
- ✓ When you choose PolyOne, you can be confident our products will help you meet or exceed today's stringent compliance standards.

Product choices often vary by region due to differences in regulatory and agency requirements, availability and other key factors. Please contact your nearest sales office for assistance in choosing the right solution for your locale.

Americas

U.S. – Avon Lake OH
+1 866 POLYONE

Argentina – Buenos Aires
+0054 11 4200 5917

Brazil – Taboão de serra
+55 11 4135 3028

Mexico – Toluca
+52 722 2790200

Asia

China – Shanghai
+86 (0) 21 5080 1188

China – Shenzhen
+86 (0) 755 2969 2888

India – Mumbai
+91 9820 194 220

Thailand – Rachatewa
Bangplee Samutprakarn
+66 (0) 2327 9100

Europe

Belgium – Assesse
+32 (0) 83 660 211

Czech Republic – Praha
+420 224 142 214

Denmark – Glostrup
+45 (0) 43 20 6300

France – Saint-Ouen
L'Aumône
+33 (0) 1 34 40 39 50

France – Tossiat
+33 (0) 4 74 42 69 70

Germany – Bendorf
+49 (0) 2622 700 90

Hungary – Gyor
+36 (0) 96 515 610

Italy – Gallarate (Varese)
+39 03 31 797 448

Poland – Kutno
+48 24 357 47 00

Spain – Oricain, Navarra
+34 (0) 948 331 011

Sweden – Angered
+46 (0) 31 92 84 50

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Better Business Solutions.SM*

www.polyone.com

PolyOne Americas

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

PolyOne Asia

Guoshoujing Road No. 88
Z.J Hi-Tech Park, Pudong
Shanghai, 201203, China
+86 (0) 21 5080 1188

PolyOne Europe

6, Giällewee
L-9749 Fischbach
Luxembourg
+32 (0) 83 660 211

NEU Specialty Engineered Materials

15 Corporate Drive
North Haven, Connecticut 06473
United States
+1 203 239 9629

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