Business
Overview

PolyOne

Engineered Thermoplastic Compounds

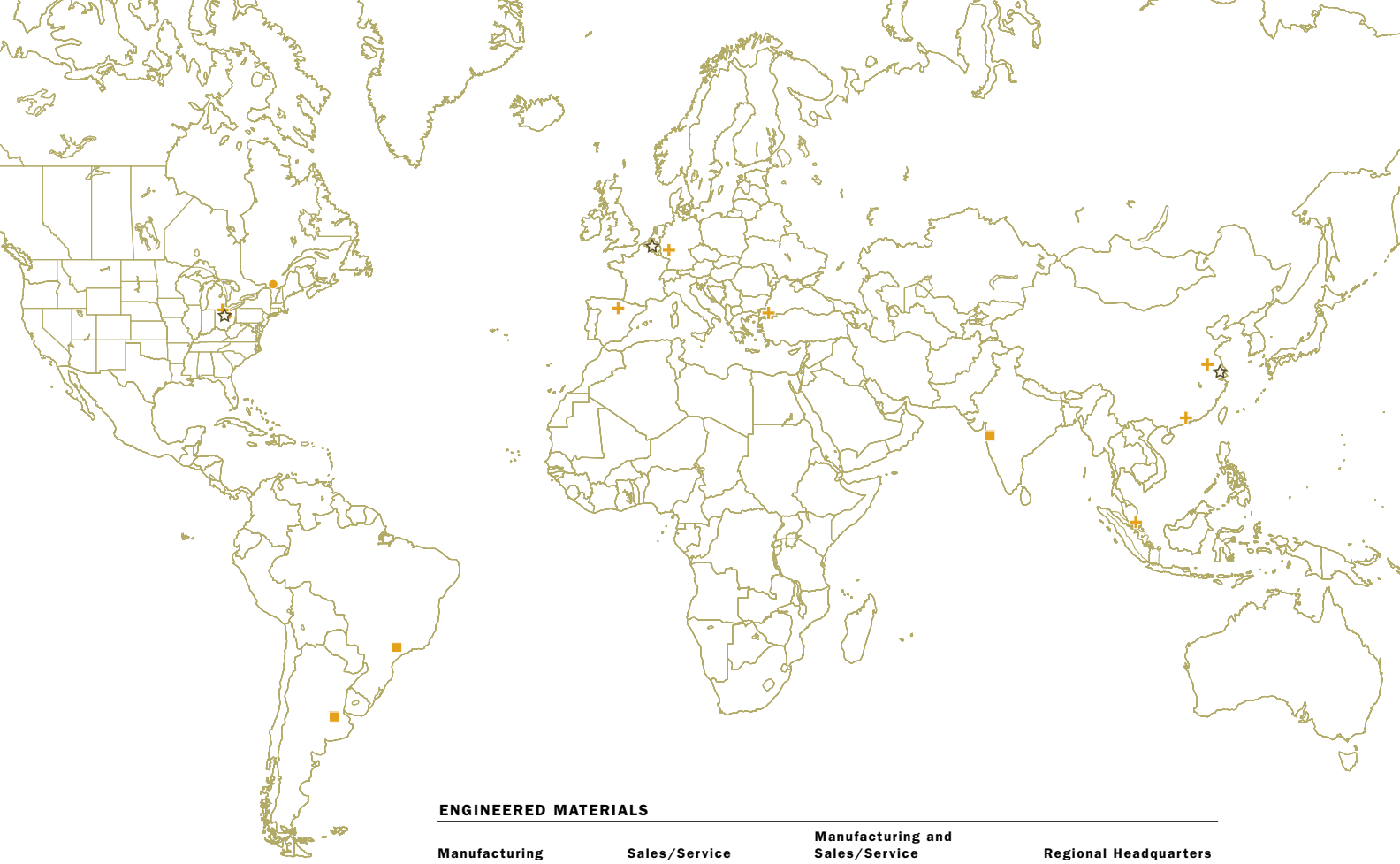
Innovative Solutions

PolyOne provides standard and custom-formulated high-performance engineered materials utilizing a broad range of thermoplastic and thermoplastic elastomer resins combined with the latest in polymer additive, reinforcement, filler and colorant technologies. We utilize the experience, diversity and commitment of our personnel in collaboration with our customers to deliver innovative compound solutions with demonstrable value. Our solutions include:

- **General Purpose Nylon & Polyolefin Compounds**
- **Thermoplastic Elastomers**
- **Low Smoke and Fume, Zero Halogen (LSFOH) Compounds**
- **Wire & Cable Products**
- **High Performance & Specialty Engineering Thermoplastic Compounds**

Product Name	Base Resin(s)	Portfolio/Product Scope
High Performance & Specialty Engineering Thermoplastic Compounds		
Bergadur™	**PBT**	• High strength • Good toughness • Good creep rupture strength • Good chemical and heat resistance • Low friction and good abrasion resistance • High dimensional stability • Good electrical properties • Good flow
ECCOH™	**Low smoke and fume, zero halogen (LSFOH)**	• Low smoke, low toxicity • Zero halogen • Wire & cable, pipe & fittings
Edgetek™	**Acetal, Nylon, LCP, PPA, PEEK, PC, PC/PSU, PES, PEI, PPS, PSU**	• High modulus/high strength reinforcements - glass and carbon fiber • Flame-retardant grades - UL 94 V-0, 5Va • Injection molding, extrusion, blow molding • Custom formulations
Edgetek™ XT	**PC/PBT PC/PET**	• Strength and durability • Chemical resistance • Low temperature impact • Weatherable / UV resistance • Custom formulations
Edgetek™ Lubricated	**Acetal, Nylon, PC, PBT, PEEK, PP, PPA, PPS, PS, PEI**	• Lubricant additives - silicone, PTFE, molybdenum disulfide • Reinforcements - glass fiber, carbon fiber, aramid fiber • Injection molding, extrusion • Custom formulations
Gravi-Tech™	**PA, TPU**	• High specific gravity - up to 11.0 • Injection molding, extrusion
Nanoblend™ Compounds	**PP**	• Light, stiff, tough • Surface quality/gloss improvement • Improved barrier to gas, chemicals and vapors
PETAL™ PET	**PET**	• Good impact properties • High heat resistance • Heat distortion temperature (HDT) above 200°C for glass-filled grades • High chemical resistance to oils and greases • High gloss level
Stat-Tech™	**ABS, Nylon, PP, PEEK, PPA, PES, PC, PC/ABS, PC/PSU, PEI**	• Reinforcements/additives - carbon powder, carbon fiber, nickel-coated carbon fiber, stainless steel fiber • Injection molding, extrusion • Custom formulations
Therma-Tech™	**Nylon, LCP, PEEK, PP, PPS, PPA**	• High thermal conductivity grades • Electrically conductive grades • Injection molding, extrusion • Dielectric grades

Product Name	Base Resin(s)	Portfolio/Product Scope
General Purpose Nylon & Polyolefin Specialty Compounds		
Bergamid™; Nymax™	**Nylon 6, 6/6, 12**	• Glass fiber reinforced, mineral filled; combination mineral/glass reinforced • Toughened grades - medium and high impact • Optional additives - heat stabilized; lubricated, impact modified • Standard grades - natural; black • Custom formulations available
Maxbatch™	**Polypropylene Polyethylene**	• Mineral masterbatches • Up to 75% filler levels
Maxxam™	**Polypropylene**	• Mineral filled, glass fiber reinforced • Homopolymer and copolymer grades • Optional additives - UV; heat stabilizers • Standard grades - natural; black • Custom formulations available
Maxxam™FR	**Polypropylene Polyethylene**	• Flame-retardant compounds to meet UL 94 V2; V-0; 5Va ratings • Flame-retardant masterbatches • Elevated RTI ratings to 115°C • Injection molding, extrusion, blow molding
Specialty Wire & Cable Products		
ECCOH™	**Low smoke and fume, zero halogen (LSFOH)**	• Low smoke, low toxicity • Zero halogen
Syncure™	**Cross-linked polyethylene (XLPE)**	• Temperature resistance • Creep resistance • Stress crack resistance • Abrasion resistance
Thermoplastic Elastomers		
Bergaflex™		• Good UV, ozone and weather resistance • Good chemical resistance to acids, bases, detergents • Low permanent set (elasticity) in a wide temperature range • Wide use temperature (-70°C to 120°C) • Wide hardness range (5 SHA to 60 SHD) • Colorable with concentrates or as pre-color compound • Recyclable FastMark™ laser-markable grades • 2-shot molding or co-extrusion onto difficult thermoplastic components (e.g. PA, ABS, PC, PS, PMMA) • Grades suitable for food contact available
OnFlex-O™ Series; Elastamax™ EG	**TPO (TPE-O)**	• PP/POE • Rheology modified • Improved low-shear melt strength • Excellent extrusion processing
OnFlex-O™ Series; Elastamax™ HTE	**PVC/NBR**	• PVC/nitrile rubber • Hardness range - (55A-90A) • Hydrocarbon & oil resistance • Weatherable
OnFlex-O™ Series; Elastamax™ XL	**TPO (TPE-O)**	• PP/EPDM • Weatherable • Hardness range (55A-40D) • Molding/extrusion grades
OnFlex-S™ Series; Synprene™	**SBC (TPE-S)**	• SBS, SEBS, SEPS • Broad hardness range - (0A - 60D) • FDA-compliant grades • Weatherable grades • Flame-retardant grades - (UL 94 V-O) • Over-molding grades
OnFlex-U™ Series	**TPU (TPE-U)**	• Excellent abrasion resistance • Retains flexibility at low temperatures • Good tensile strength • High resistance to cut & tear • Improved resistance to oil and hydrolysis • Halogen-free flame-retardant grades available
OnFlex-V™ Series	**TPV (TPE-V)**	• PP/X-linked EPDM • Improved compression set • Elevated service temperature capability • Improved chemical resistance • Weatherable grades • Custom formulations



ENGINEERED MATERIALS

Manufacturing	Sales/Service	Manufacturing and Sales/Service	Regional Headquarters

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.

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