









SPECIALTY ENGINEERED MATERIALS





The product design and material specification process can be daunting. Avient is here to help you meet your most challenging application requirements with the broadest portfolio of solutions, capabilities and resources available, and our focus is on helping you succeed. If you don't see what you need today, we are ready to tailor a custom formula to tackle your specific application requirements, while also offering engineering support and industrial design expertise along the way. From material selection to technical support, we're here to help you drive your product from concept to reality.

NAME	BASE RESIN(S)	TARGET MARKETS/ APPLICATIONS	AVAILABLE FEATURES ¹
 Artisan™ Pre-Colored Thermoplastics	ABS, PA	Powersports, Lawn & Garden, Marine, Electronics, Home Appliances, Cosmetic Packaging	Customizable pre-color solutions Scratch & mar resistance Weatherability & UV resistance High impact resistance Chemical resistance Simplifies processing/replaces paint Tailored temperature performance range: -20°C to 105°C
Bergadur™ Polyester Formulations	PBT	Transportation, Consumer, Industrial	High strength Good creep rupture strength Good chemical and heat resistance Low friction and good abrasion resistance
   Complēt™ Long Fiber Reinforced Structural Thermoplastics/ OnForce™ Long Glass Fiber Reinforced Polypropylene Composites	PA, PK, PP, PPA, PPS, TPU	Consumer, Transportation, Industrial	Long fiber technology Elevated impact and mechanical properties at room temperature Increased performance at temperature extremes Excellent creep and fatigue resistance Glass and carbon fiber filled options Lubricated, fire retardant, and pre-colored options PK-based formulations offer reduced carbon footprint as a result of the base resin Recycled grades formulated with up to 100% post-industrial recycled (PIR) or post-consumer recycled (PCR) content
  Edgetek™ Engineered Polymer Formulations	ABS, LCP, PA, PC, PC/ABS, PC/PBT, PC/PET, PC/PSU, PEEK, PES, PEI, POM, PPA, PPS, PSU	Transportation, Consumer, Industrial, Telecommunications, Electrical & Electronics	Strength and durability Chemical and temperature resistance High impact resistance Weatherability Flame retardant grades: UL 94 V-0, V-1, V-2, and 5VA Low-density grades for weight reduction 5G properties – customizable Dk/Df and 3D/LDS solutions
 Edgetek™ REC PC Recycled Polycarbonate Solutions	PC	Electrical & Electronics, Consumer Goods, Transportation	Contain 25–70% PIR or PCR content Comparable performance to prime PC formulations
 Edgetek™ PKE Polyketone Formulations	PK	Electrical & Electronics, Industrial, Consumer, Transportation	Excellent chemical resistance Good strength, durability and dimensional stability Pre-colored formulations Non-halogen, flame retardant performance to UL 94 V-0 Reduced carbon footprint compared to PA6 and PA66





¹ See technical data sheets for complete product details
 Icons indicate the availability of sustainable formulations. See page 7 for additional details.

SPECIALTY ENGINEERED THERMOPLASTICS




NAME	BASE RESIN(S)	TARGET MARKETS/ APPLICATIONS	AVAILABLE FEATURES ¹
 Gravi-Tech™ Density Modified Formulations	PA, TPU, TPE, PBT	Consumer, Transportation, Industrial	Customized density, from 1.5 to 11 gm/cm ³ Broad modulus and strength: flexible to rigid Chemical and corrosion resistance Alternative to lead and other traditional dense metals
 Gravi-Tech™ BIO Bio-based Formulations	Bio-based PP	Cosmetic Caps & Closures, Perfume Caps, Spirit Bottle Caps, Luxury Boxes, Handles & Knobs	Customized density, from 1.5 to 11 gm/cm ³ Formulated with partially bio-based resin from renewable plant sources Achieve equivalent performance to prime density modified solutions
 Gravi-Tech™ REC Recycled Formulations	rPP, rABS, rPA	Cosmetic Caps & Closures, Perfume Caps, Spirit Bottle Caps, Luxury Boxes, Handles & Knobs	Customized density, from 1.5 to 11 gm/cm ³ Based on recycled resin and/or filler from PIR and/or PCR sources Achieve equivalent performance to prime density modified solutions
 LubriOne™ Internally Lubricated Formulations/ LubriOne™ PKE Polyketone Formulations	PA, PBT, PC, PEEK, PEI, PK, POM, PP, PPA, PPS, PS	Transportation, Electrical & Electronics, Industrial	Low coefficient of friction Self-lubricating Chemical, wear, and corrosion resistance PK-based formulations can offer a reduced carbon footprint compared to PA6, PA66 and POM Grades avoiding the use of fluorinated lubricants such as PTFE are available
 Maxxam™ Polyolefin Formulations	PP	Consumer, Transportation, Electrical & Electronics, Industrial	Homopolymer and co-polymer grades Optional additives: UV, heat stabilizers Standard grades available in natural and black
 Maxxam™ BIO Bio-Based Polyolefin Formulations	PP	Consumer, Transportation, Electrical & Electronics, Industrial	Formulated with 10–50% bio-content including bio-based resin and/or filler Bio-filler from sources including olive seed powder, recycled coffee grounds, cellulose fiber Achieves equivalent performance to standard polyolefin formulations
 Maxxam™ FR Flame Retardant Polyolefin Formulations	PE, PP	Consumer, Transportation, Electrical & Electronics, Industrial, Energy	Flame retardant grades: UL 94 V-0, V-1, V-2, and 5VA Elevated UL RTI ratings Halogen-free flame retardant grades available
 Maxxam™ REC Recycled Polyolefin Formulations	PP	Consumer, Transportation, Electrical & Electronics, Industrial	Formulated with 25–100% recycled resin from PIR and PCR sources Achieves equivalent performance to standard polyolefin formulations
Nymax™/Bergamid™ Polymer Formulations	PA 6, 66, 612, 12, co-polymers	Transportation, Building & Construction, Electrical & Electronics	Toughened grades: medium and high impact Optional additives: heat stabilized, lubricated, impact modified, nucleated Standard grades available in natural and black Pre-colored solutions available
 Nymax™ BIO Bio-based Polyamide Solutions	Bio-based PA	Transportation, Consumer Goods, Industrial, Building & Construction	Formulated with 16–47% natural filler, reducing the carbon footprint Excellent surface appearance and colorability Lower warpage compared with PA66 glass fiber-filled materials Equivalent performance to PA66 glass fiber-filled materials Excellent dimensional stability and property retention rate after water uptake
 Nymax™ REC Recycled Nylon Formulations	PA6, PA66	Transportation, Consumer, Household Appliances, Electrical & Electronics, Industrial	Contains 20–100% recycled content PIR and PCR grades available Support the circular economy Comparable performance to prime grades Customizable solution

¹ See technical data sheets for complete product details

SPECIALTY ENGINEERED THERMOPLASTICS

NAME	BASE RESIN(S)	TARGET MARKETS/ APPLICATIONS	AVAILABLE FEATURES ¹
 PREPERM™ Low-Loss Dielectric Thermoplastics	PPE, PBT, ABS, PP	Telecommunications, Transportation	Stable and controlled dielectric performance Ultra-low transmission loss at mmWave frequencies up to 220 GHz Dielectric constant (Dk) range spanning 2.55 to 23
 Stat-Tech™ Static Dissipative & Electrically Conductive Formulations	ABS, PA, PC, PC/ABS, PC/PSU, PEEK, PEI, PES, PP, PPA	Transportation, Electrical & Electronics	Integrated EMI/RFI shielding Conductive properties Anti-static/dissipative properties Corrosion resistance Lightweighting and ease of processing Clean room materials for semiconductors available TPE grades are available (see page 6)
 Surround™ EMI/RFI Shielding Formulations	ABS, PP, PBT, PC, PA 66	Transportation, Electrical & Electronics	Integrated EMI/RFI shielding Long fiber technology Conductive properties Galvanic corrosion protection Lightweighting and ease of processing
 Therma-Tech™ Thermally Conductive Formulations	LCP, PA, PEEK, PP, PPA, PPS	Consumer, Transportation	Thermally conductive Low coefficient of thermal expansion Corrosion resistance

HEALTHCARE SPECIALTY FORMULATIONS

NAME	BASE RESIN(S)	AVAILABLE FEATURES ¹
 NEU Specialty Engineered Materials²	PEBA, TPU, PA 11, PA 12, PP, PE, TPE	Radiopacifiers, stabilizers, and surface modifiers Antimicrobial technologies Pre-colored formulations Small lot capabilities Short lead times
 Trilliant™ HC Healthcare Thermoplastics	ABS, LCP, PA, PA 6, PA 66, PC, PC/ABS, PC/PSU, PEBA, PEEK, PES, PK, POM, PPA, PSU	Certified to USP Class VI Formulations locked down Drug master file submissions by product stewardship Pre-colored, small lot production down to 50 lb–250 lb Sterilization, chemical resistance, and secondary process guidance Adherence to FDM-GMP manufacturing standards Antimicrobial technologies Materials for radiation shielding protection PK-based formulations offer reduced carbon footprint as a result of the base resin
 Versaflex™ HC Thermoplastic Elastomers	TPE	Overmolding Clear and heat resistant Ultra clear grades Ultra soft TPE gels, 30 Shore 00 FDA, USP Class VI, ISO 10993 approved grades Sterilizable under autoclave, radiation, and EtO gas Extrusion, injection, and blow moldable Bio-based formulations available

¹ See technical data sheets for complete product details

² NEU™ and NEUSoft™ Thermoplastic Polyurethanes formulations are products of NEU Specialty Engineered Materials, LLC







CROSS-LINKABLE ELASTOMERS

NAME	DESCRIPTION	TARGET MARKETS/ APPLICATIONS	AVAILABLE FEATURES ¹
Barricade™ Elastomers with Fortrex™ Technology	Barricade™ High-performance elastomers that bridge the gap between traditional TPEs and silicone	Healthcare, Industrial, Aerospace, Appliances, Electronics	High temperature compression set Processes on thermoplastic injection molding and extrusion equipment Customizable and colorable Process simplicity

Barricade formulations leverage licensed Fortrex™ technology. Fortrex is a trademark of Cooper-Standard Automotive, Inc.









WIRE AND CABLE SPECIALTY THERMOPLASTICS

NAME	BASE RESIN(S)	AVAILABLE FEATURES ¹
 ECCOH™ Low Smoke and Fume Non-Halogen Formulations	PE, PP, TPE, EVA	Flame retardant, low smoke and fume, non-halogen (LSFOH) Flexible, low friction, easy-peel, and high-speed processing Compatible with Avient colorants and additives
 ECCOH™ XL Cross-Linkable Solutions	XLPE	Enhances the performance of traditional ECCOH LSFOH solutions Improved oil, chemical and UV resistance, mechanical performance, or operating temperature
FireCon™ CPE Insulation Jacketing Formulations	CPE, CPE alloy	Low and medium voltage cable jacketing Flame retardant and 90°C deformation resistance Oil resistance RoHS grades available
 Maxxam™ FR Flame Retardant Polyolefin Formulations	PE, PP	UL Yellow Card for plenum applications Halogen-free flame retardant grades available
Maxxam™ SY Foamable Flame Retardant Formulations	Foamable PP co-polymer	Easy processing Variety of final densities available Corrosion resistance
 Syncure™ XLPE Cross-linkable Polyethylene Formulations	XLPE	Low and medium voltage formulations High performance moisture cure technology UL bulletinized XHHW2 and VW1 Temperature, abrasion, and oil resistant Formulations available without DBDPE Resistant to electrical breakdown

¹ See technical data sheets for complete product details



GLS™ THERMOPLASTIC ELASTOMERS

NAME	TARGET MARKETS/APPLICATIONS	AVAILABLE FEATURES ¹
 OnFlex™ Thermoplastic Elastomers	Transportation, Building & Construction, Electrical & Electronics, Industrial, Wire & Cable	Low odor solutions UV stabilization High heat resistance Chemical resistance Automotive approved grades Excellent compression set Overmolding Flame resistant grades Excellent weatherability Extrusion, injection, and blow moldable Formulations with imbedded antimicrobial additives
 reSound™ BIO Thermoplastic Elastomers	Consumer, Transportation, Industrial	Biopolymers sustainably sourced from plant-based raw materials Utilizing 35–75% bio-renewable content Strength and durability Chemical resistance Impact resistance Pre-colored solutions
 reSound™ REC Recycled Content Thermoplastic Elastomers	Personal Care Products, Lawn & Garden Tools, Outdoor Goods, Office Supplies, Footwear, Houseware Durables, Consumer Electronics, Automotive	PIR & PCR formulations utilizing 9–83% recycled content PCR grades formulated with recycled ocean plastics, food packaging, engine oil, or polyvinyl butyral (PVB) PCR grade suitable for use in specific food-contact applications Supports the circular economy Can be overmolded to PP, PC, ABS, PC/AB Comparable performance to traditional TPEs
 reSound™ Ultra-Low Carbon Footprint Thermoplastics Elastomers	Personal Care, Household Appliances, Consumer Packaging, Consumer Electronics	Formulated to achieve a negative, neutral or low product carbon footprint (PCF) Industry-first cradle-to-gate PCF range between -0.46 and -0.02 in kg CO ₂ equivalent/kg product Opaque natural appearance Easily colorable Comparable performance to traditional TPEs Can be overmolded to PP or PE
Stat-Tech™ TPE Static Dissipative & Electrically Conductive Thermoplastic Elastomers	Automotive, Industrial, Conveyor Belts & Controls, ADAS Systems, Electronic Devices	Electrical resistivity range from 10 to 10 ¹⁰ Ω Hardness range from 40–85 Shore A Protects critical electrical components from EMI/RFI and reduces static build-up Simplifies manufacturing Overmolds directly onto polymer substrates Meets regulatory compliance requirements of ATEX and ESD, and food contact compliance grades are available
    Versaflex™ and Versaflex™ HC Thermoplastic Elastomers	Consumer, Packaging, Healthcare, Electrical & Electronics, Appliances, Medical Tubing, Protective Films	Overmolding Vibration damping grades Clear and heat resistant TPEs Ultra clear grades Ultra soft TPE gels, 30 Shore OO FDA, USP Class VI, ISO 10993 approved grades NSF and UL listings Sterilizable under autoclave, radiation, and EtO gas Extrusion, injection, and blow moldable Formulations with imbedded antimicrobial additive Bio-based formulations for healthcare available



SPECIALTY ENGINEERED FORMULATIONS THAT SUPPORT SUSTAINABILITY

 <p>Lightweighting</p>	<p>Complēt™ Long Fiber Reinforced Structural Thermoplastics Edgetek™ LD Low Density Formulations LubriOne™ Internally Lubricated Formulations OnForce™ Long Glass Fiber Reinforced Polypropylene Composites Stat-Tech™ Static Dissipative & Electrically Conductive Formulations Surround™ EMI/RFI Shielding Formulations Therma-Tech™ Thermally Conductive Formulations</p>
 <p>Human Health & Safety</p>	<p>NEUSoft™ Thermoplastic Polyurethanes Versaflex™ HC Thermoplastic Elastomers</p>
 <p>Reduced Energy Use</p>	<p>Artisan™ Pre-Colored Thermoplastics Versaflex™ Non-Blooming TPEs for Consumer Electronics</p>
 <p>VOC Reduction</p>	<p>OnFlex™ LO Thermoplastic Elastomers Versaflex™ Low Adhesive Build-up TPE for Protective Film Tack Layer Versaflex™ PF Tack Layer for Surface Protective Films</p>
 <p>Recycle Solutions</p>	<p>Complēt™ REC Long Fiber Reinforced Structural Thermoplastics Edgetek™ REC PC Recycled Polycarbonate Solutions Gravi-Tech™ REC Recycled Formulations Maxxam™ REC Recycled Polyolefin Formulations Nymax™ REC Recycled Nylon Formulations reSound™ REC Recycled Content Thermoplastic Elastomer</p>
 <p>Biopolymers</p>	<p>Gravi-Tech™ BIO Bio-based Formulations Maxxam™ BIO Bio-based Polyolefin Formulations Nymax™ BIO Bio-based Polyamide Solutions reSound™ BIO Thermoplastic Elastomers Versaflex™ HC BIO Thermoplastic Elastomers</p>
 <p>Eco-conscious</p>	<p>Complēt™ PKE Long Fiber Reinforced Structural Polyketone Thermoplastics Edgetek™ PKE Polyketone Formulations Edgetek™ Solutions for Laser Welding LubriOne™ PKE Polyketone Formulations Gravi-Tech™ Lead Replacement Formulations reSound™ Ultra-Low Carbon Footprint Thermoplastics Elastomers Trilliant™ HC Healthcare Polyketone-based Thermoplastics Trilliant™ XR Lead Replacement Thermoplastics</p>
 <p>Sustainable Infrastructure</p>	<p>ECCOH™ Low Smoke and Fume Non-Halogen Formulations ECCOH™ XL Cross-linkable Solutions Edgetek™ Formulations for 5G Maxxam™ FR Flame Retardant Polyolefin Formulations PREPERM™ Low-Loss Dielectric Thermoplastics Syncure™ XLPE Cross-linkable Polyethylene Formulations</p>

SPECIALTY ENGINEERED MATERIALS FOCUS MARKETS

Our product portfolio offers customizable solutions to serve a full range of markets, including:

Building & Construction

Consumer

Energy

Healthcare

Industrial

Packaging

Telecommunications

Transportation



To learn more, please visit avient.com
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