



Polymer Performance



The extrusion experts at Teel Plastics understand the characteristics of polymers and offer personalized technical solutions. We know how individual polymers will better your application.



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ABBREVIATION	POLYMER
POLYOLEFINS	
HDPE	High-Density Polyethylene
LDPE	Low-Density Polyethylene
LLDPE	Linear Low Density Polyethylene
PP (HOMOPOLYMER)	Polypropylene
PP (COPOLYMER)	Polypropylene Copolymers
IONOMER	Carboxylated Polyethylene Copolymer Metal Salts
POLYSTYRENE/STYRENICS	
GPPS	General Purpose Polystyrene
HIPS	High Impact Polystyrene
ABS	Acrylonitrile Butadiene Styrene Copolymer
SAN	Styrene Acrylonitrile Copolymer
ASA	Acrylonitrile Styrene Acrylate Copolymer
POLYAMIDES	
PA6	Polyamide-6 (Nylon-6)
PA66	Polyamide-6,6 (Nylon-6,6)
PA11	Polyamide-11 (Nylon-11)
PA12	Polyamide-12 (Nylon-12)
PA6T	Polyamide-6/Aromatic Copolymer
PA66T	Polyamide-6,6/Aromatic Copolymer
MXD6	Nylon-MXD6
PAI	Polyamide-imide
POLYETHERS AND POLYESTERS	
PBT	Polybutylene Terephthalate
PETG	Polyethylene Terephthalate/Glycol-Modified
PET	Polyethylene Terephthalate
PEN	Polyethylene Naphthalate
PLA	Poly(lactic acid)
PHB	Polyhydroxybutyrate
PMMA	Polymethyl Methacrylate Acrylic
PC	Polycarbonate
POM	Polyacetals (Polyoxymethylene)
PPO	Polyphenylene Oxide
PEEK	Polyetheretherketone
PEI	Polyetherimide
INORGANIC POLYMERS	
FEP	Fluorinated Ethylene-Propylene Copolymer
PFA	Perfluoroalkoxy Polymer
ECTFE	Ethylene-Chlorotrifluoroethylene Copolymer
PCTFE	Polychlorotrifluoroethylene
ETFE	Ethylene Tetrafluoroethylene Copolymer
PVDF	Polyvinylidene fluoride
PVC (FLEXIBLE)	Polyvinyl Chloride (Plasticized)
PVC (RIGID)	Polyvinyl Chloride (Not Plasticized)
CPVC	Chlorinated Polyvinyl Chloride
SULFONATED POLYMERS	
PSU	Polysulfone
PPSU	Polyphenylsulfone
PES	Polyethersulfone
PPS	Polyphenylenesulfide
ELASTOMERS	
TPU	Thermoplastic Polyurethane Elastomers
COPE	Thermoplastic Copolyester Elastomers
PEBA	Polyether-block-Amide (Pebax)
SIS	Styrene-Isoprene-Styrene Triblock Elastomer
SBS	Styrene-Butylene-Styrene Triblock Elastomer
SEPS	Styrene-Ethylene/Propylene-Styrene Triblock Elastomer
SEBS	Styrene-Ethylene/Butylene-Styrene Triblock Elastomer
TPE-O	Olefinic Thermoplastic Elastomer

	HIGHEST	HIGHER	LOWER	LOWEST
CHEMICAL RESISTANCE	POM, FEP, EFEP, PFA, PTFE, ECTFE, PVDF, PEEK, PCTFE, PES, PPO	HDPE, LDPE, LLDPE, PP, PVC, PA11, PA12, PET, PBT, PETG, SEBS, SBS, SIS, SEPS, TPE-O, PEBA, COPE, TPU, PSU, PPS, PPSU, CPE, CPVC, CAP, CAB, PEI, PC, PAI	GPPS, HIPS, ABS, SAN, ASA, PMMA, IONOMER, PA6, PA66, PLA, PHB, CA	
OUTDOOR APPLICATIONS	FEP, PTFE, ETFE, PVDF, PCTFE, ECTFE, PFA, CAB, PVC (RIGID), PEI, PEEK	CAP, PET, PEN, MXD6, PA6T, PA66T, PVC (FLEXIBLE), PES	PC, PA11, PA12, PBT, PPS, PPSU	HDPE, PP, LDPE, LLDPE, HIPS, GPPS, ABS, SAN, PA6, PA66, PETG, PMMA, ASA, POM, CA, PSU
MEDICAL APPLICATIONS	POM, PEEK, PTFE, FEP, ETFE, PFA, TPU, HDPE, PEBA, PLA, PHB, MXD6, PA6T, PA66T	PP, LDPE, SEBS, SEPS, SIS, SBS, PC, COPE, ABS, PA66, PA11, PA12, SAN, PVC, PBT, PETG, PET, GPPS, HIPS, TPE-O		
FOOD APPLICATIONS	POM, PA11, PA12, ECTFE, PFA, FEP, EFEP, HDPE, LDPE, LLDPE, PET, PETG, PEBA, SIS, SBS, SEBS, SEPS, COPE, PCTFE, PEN, MXD6, PA6T, PA66T	SAN, PBT, PVC, TPE-O, TPU, GPPS, PMMA, ASA, PC, ABS, HIPS, PA6, PA66, CAB, CAP	PLA, PHB, PEEK, PTFE, PVDF, PSU, CA, PES, PPS, PPSU	
OVERALL STERILIZATION SUITABILITY	ETFE, FEP, PFA, PTFE, PEEK, PSU, PA66, PA11, PA12, COPE, PET, PETG, MXD6, PA6T, PA66T	SEBS, SEPS, PBT, PC, PP	HDPE, LDPE, POM, SIS, SBS, SAN, ABS, GPPS, HIPS, PVC, TPU, PLA, PHB	
GAMMA IRRADIATION STERILIZATION SUITABILITY	PET, PETG, PBT, SEBS, SEPS, SIS, SBS, COPE, PEBA, GPPS, HIPS, PEEK, PSU, PLA, PHB, MXD6, PA6T, PA66T		POM, ABS, TPU, PVC, SAN, HDPE, LDPE, PP, PA66, PA11, PA12, PC	ETFE, FEP, PTFE, PFA
CLARITY	PC, GPPS, PLA, COPE, PMMA, PCTFE, CAP, CAB	ECTFE, PEBA, SIS, SBS, SEBS, PVC, TPU, PET, PETG, ASA, PHB, SAN, ABS (CLARIFIED), HIPS, MXD6, PA6T, PA66T, CA, PEN, IONOMER	PBT, PEEK, ETFE, PFA, FEP, LDPE, PP (COPOLYMER), TPE-O, ABS (STANDARD), PES, LLDPE	POM, PA6, PA66, PA11, PA12, PSU, PTFE, PVDF, HDPE, PP (HOMOPOLYMER), PPS, PPSU, CPE, CPVC, PPO
DIMENSIONAL STABILITY	PC, GPPS, HIPS, PEBA, PSU, ECTFE, PEEK, PMMA, SAN, PFA, PVC (RIGID), PEI, PPO, PETG, PET, PEN, PAI, MXD6, PA6T, PA66T	POM, PVC (FLEXIBLE), PA11, PA6, PA66, PBT, PTFE, ASA, ABS, SIS, SEBS, SEPS, SBS	LDPE, PA12, PLA, PHB, PP, COPE, ETFE, CA, CAP, CAB, PVDF	HDPE, LDPE, LLDPE, IONOMER, FEP
LOW TEMPERATURE PERFORMANCE	PTFE, PFA, ECTFE, EFEP, FEP, PEEK, LDPE, LLDPE, PP (COPOLYMER), PVC (FLEXIBLE), COPE, TPE-O, SIS, SBS	HIPS, ABS, HDPE, PP (HOMOPOLYMER), PSU, PA11, PA12, PVC (RIGID), SEBS, SEPS, PEBA, PETG, TPU	POM, PA6, PA66, SAN, PC, PBT	PMMA, ASA, PLA, PHB, PET, GPPS
HEAT RESISTANCE	FEP, EFEP, PFA, PTFE, PVDF, PEEK, PSU, PPS, PES, PPSU, ECTFE, PC, PEI, PPO, PAI, PET, PEN, MXD6, PA6T, PA66T, PA6, PA66	POM, PA11, PA12, PVC (RIGID), PP (COPOLYMER & HOMOPOLYMER), PMMA, PBT, PETG, ABS	COPE, PEBA, SEBS, SEPS, SBS, SIS, TPE-O, PVC (FLEXIBLE), TPU, ASA, SAN	GPPS, HIPS, HDPE, LDPE, LLDPE, PHB, PLA
IMPACT RESISTANCE	COPE, ECTFE, FEP, PFA, ETFE, SIS, SBS, ABS, HDPE, LDPE, PA66, PA6, PC, PPO, CAB, CAP, PEBA, PVC (FLEXIBLE)	POM, PEEK, SEBS, SEPS, PVC (RIGID), CPVC, PMMA, TPU, TPE-O, PA11, PA66T, PA6T, PEN, PETG, PP (COPOLYMER), HIPS, PEI, CA, PTFE, PVDF, PCTFE, PPS, PPSU, PES	PP (HOMOPOLYMER), MXD6, PA12, PET, PBT, PSU, LLDPE	PLA, PHB, ASA, SAN, GPPS
STIFFNESS	POM, PBT, GPPS, PEEK, PVC (RIGID), ABS (STANDARD), MXD6, PA6T, PA66T, PAI, PET, PEN, PMMA, PPO, PEI, PLA, CPVC, PPS, PES	PA6, PA66, PETG, SAN, PVDF, HIPS, PHB, PP (HOMOPOLYMER), PC, CA, PCTFE, PSU, PPSU	HDPE, PP (COPOLYMER), FEP, ECTFE, ETFE, ABS (CLARIFIED), ASA, PA11, PA12, CAB, CAP, PTFE, PFA	COPE, SIS, SEPS, SEBS, SBS, TPU, TPE-O, PEBA, PVC (FLEXIBLE), IONOMER, LDPE, LLDPE
STRENGTH (COMBINED - TENSILE, COMPRESSIVE, FLEXURE)	POM, PEN, PPO, PC, PEEK, MXD6, PA6T, PA66T, PEI, PVC (RIGID), CPVC, PSU, PPS, PES, PPSU, PA6, PA66, PAI, PMMA, PA11, SAN	PLA, PVDF, COPE, PTFE, ECTFE, PCTFE, CA, CAB, PETG, PBT, PET, PA12, ASA, ABS, GPPS	HDPE, LLDPE, PP (HOMOPOLYMER), IONOMER, HIPS, CAP, TPU, PEBA, SIS, SBS, SEPS, SEBS, FEP, ETFE, PFA	LDPE, PP (COPOLYMER), PVC (FLEXIBLE)
FLEXIBILITY	HDPE, LLDPE, SEBS, SEPS, SIS, SBS, TPU, COPE, TPE-O, LDPE, PP (COPOLYMER), PTFE, PEBA, IONOMER, PVC (FLEXIBLE)	PA6, PA66, PA11, PA12, PET, PETG, PVDF, FEP, ETFE, PCTFE, ECTFE, PFA	POM, PPO, PEN, PSU, PES, PVC (RIGID), PLA, CAB, CAP, PEI, PEEK, PC, PBT, PEN, ASA, ABS, HIPS	GPPS, SAN, PMMA, PPS, PA6T, PA66T, MXD6, PAI, CA, PPSU, CPVC
COST	PEEK, ECTFE, PFA, PEBA, PCTFE, PAI, PEI, PES	PA11, PA12, PTFE, PVDF, COPE, SIS, SBS, SEPS, SEBS, TPU, EFEP, FEP, PPSU, PSU, PPS, PEN, MXD6, PA6T, PA66T	POM, ABS, PLA, PHB, PBT, PA6, PA66, SAN, PC, PETG, PET, ASA, PMMA, TPE-O, IONOMER	HDPE, PP, LDPE, HIPS, GPPS, PVC



Teel Plastics started its testing laboratory in 2010 to support quality assurance and new product development. Teel Analytical Laboratories has expanded to create a new facility that specializes in polymer analysis. As a part of this expansion we offer our polymer testing services to you as well.

Our lab personnel use quality instrumentation from leading manufacturers assuring that the samples are being analyzed on state of the art instrumentation.

The ISO 17025 certified quality system and validated test methods assure that the results you receive are accurate and reliable.

Whether you're looking for thermal analysis to do process improvements to a production line or need testing for failure analysis of products, Teel's laboratory will be here to provide the information you need.

Teel's testing laboratory works with plastics processors daily and understands your needs and challenges. We have used test results to improve everything from materials selection to inventory management. Our staff can listen and explain what tests would best suit your needs.

Teel Plastics has the technical resources to solve the most challenging product applications.

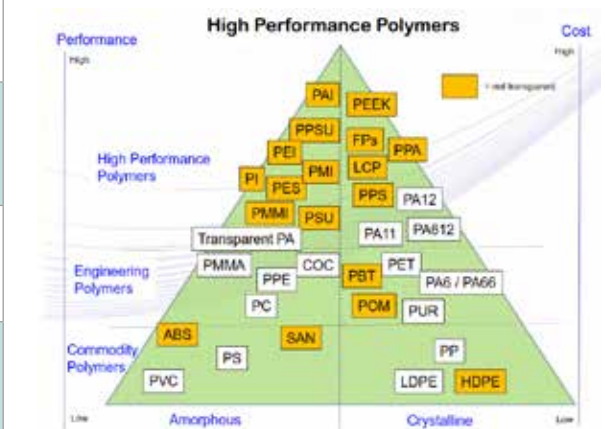
- ISO 17025 accredited materials laboratory
- Compounding capabilities
- Onsite tool shop
- Accomplished engineering staff



These resources, along with our experience processing a wide variety of different materials, makes Teel Plastics the perfect choice for designing your next product.

We understand our customers' needs and can work with customers to develop products with materials that meet specific regulatory requirements. Teel holds FDA, ISO, and NSF certifications and is comfortable complying to worldwide regulatory standards.

To learn more about Teel Analytical Laboratories, and the testing services we can provide for you, please call 608-355-4520.





Teel's Investment in Technology

In 2007, Teel held a groundbreaking ceremony for its new 150,000 sq. ft. headquarters and expanding extrusion division in Baraboo. Construction on the environmentally conscious building began in September of 2006 and was completed in the summer of 2007. The new building incorporates Teel's commitment to lean manufacturing and provides space for company-wide growth. The new building's design started with a green concept using less energy and resources while providing an improved work environment for employees.

Teel's new headquarters are located in Teel's new 80 acre Gateway Business Park in Baraboo, WI. The Gateway Business Park creates space for continued business growth and new economic development for the Baraboo area.

In 2010, TeelDas, a subsidiary of Teel, opened the doors of its custom compounding and extrusion manufacturing facility. The facility is dedicated to the manufacture of a custom product for worldwide distribution using a proprietary process developed in conjunction with a Fortune 500 company. Teel continues to look for unique partnerships to develop and manufacture custom products. One such partnership has been in existence for over 60 years.

In 2013, Teel Analytical Laboratories, a division of Teel, received certification to the ISO 17025 standard for analytical laboratories. The certification, which was obtained from Perry Johnson Laboratory Associates, marks the organization as a first-class laboratory in the area of material science and polymer analysis. Teel Analytical Laboratories offers confidential analysis services and consulting with a focus on polymer analysis.

Today, our business focuses is on technology driven products and exciting new markets with several unique product families within each. The custom products for the healthcare sector focus on personal hygiene, medical packaging, and medical device components. Industrial products include water filtration, automotive, converting industry and packaging, as well as consumer products such as cosmetics and pencils. The Laboratory Sampling Products division continues to develop innovative sampling bag products for new customer uses. In addition, Teel manufactures and extrudes custom compounds.

Our analytical lab is under expansion and we currently have the following instrumentation available for use:



- Differential Scanning Calorimetry (DSC)
- Thermogravimetric Analyzer (TGA)
- Fourier Transform Infrared Spectrometer (FT-IR)
- Microscopy
- High Performance Liquid Chromatograph (HPLC)
- Moisture Analyzer (relative humidity sensor)
- Moisture Analyzer (gravimetric)
- Shore Hardness Durometer (D-Scale)
- Pipe Burst Tester
- Bulk Density
- Semi-micro Analytical Balances

Our analytical lab is installing new instruments regularly. Please check back with us shortly for these test methods.

- Capillary Rheometer
- Gas Chromatograph coupled with a Mass Spectrometer (GC-MS)
- Colorimeter
- Accelerated Weathering Chambers
- Crush Testing
- Peel Testing
- Impact Testing
- Tensile Testing



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