Polypropylene engineered for nonwoven and textile applications

Nonwovens
Slit Tape, Monofilament, Strapping
BCF, Continuous Filament
Total Petrochemicals USA, Inc. has long been a leading supplier to the nonwoven and textile industries, earning a reputation for superior resin quality and product consistency.

Our polymerization technology yields an extremely clean, gel-free resin, with a balanced molecular weight distribution ideally suited for high speed melt spinning and drawing of fine denier, high strength fibers and fabrics. We offer a complete line of polypropylene fiber grade resins to serve just about any fiber application and market in the world today.

With production facilities in North America, Europe and Asia Total Petrochemicals ranks as the third largest polypropylene producer worldwide. Our La Porte plant near Houston, Texas is the largest single-site polypropylene facility in the world, producing more than 2 billion pounds of high quality polypropylene per year.

One of our strengths is our size, but equally important we are known for our technological leadership and our superior customer service. With major research and technology facilities in North America and Europe, we are at the forefront of polypropylene catalyst and process technology. Coupled with our responsive customer service, delivery lead time and product reliability, Total Petrochemicals is the supplier of choice in the nonwoven and textile industries.
Nonwovens

Total Petrochemicals offers an extensive line of products to the nonwovens industry. Our innovative resins are designed to meet the needs of spunbond, melt-blown and staple applications. Products such as diapers, feminine hygiene products, medical gowns, face masks, filtration media, geo-textile fabrics, insulation and other applications are only a few of the applications designed based on the properties exhibited by our complete line of polypropylenes. Our resins are clean, consistent and designed for stable melt processing, with low smoke and excellent melt spinning over a wide range of technologies. We produce conventional homopolymers, metallocene isotactic homopolymers, ethylene-propylene random copolymers, metallocene syndiotactic propylene polymers and pelletized ultra-high melt flow polypropylene resins for staple, spunbond and melt-blown applications.

Slit Tape, Monofilament and Strapping

With decades of experience as a leading supplier to the slit tape, monofilament and strapping markets, Total Petrochemicals has the resin needed for these diverse applications. Good mechanical strength is critical for producing high quality end-use products such as carpet backing, woven bulk containers, industrial fabrics, geo-textiles, concrete reinforcement, rope and strapping. Our commitment to technology results in products with low water carryover, low shrinkage and superior UV stability.

BCF and Continuous Filament

Total Petrochemicals manufacturing and catalyst technologies deliver polypropylenes of consistent high quality to the bulk continuous filament yarn market. Our polypropylene resins provide high tenacity, low gas fade, excellent UV resistance, low shrinkage and superior bulking properties. Our resins are recognized as a quality standard in CF (Continuous Filaments) and BCF (Bulk Continuous Filaments) markets for textile applications as well as in BCF markets for carpet yarns used by the carpet yarn industry.

METALLOCENES

As a leader in the development and commercialization of new propylene-based polymers using proprietary metallocene single-site catalyst technology coupled with our proprietary process technology, Total Petrochemicals has introduced many new and exciting benefits to the nonwovens and textiles market, especially for nonwovens. Faster processing speeds, lower smoke generation and higher tenacities produced with finer deniers are now possible using metallocene-isotactic propylene polymer. Spunbond fabric improvements include improved fabric formation, finer fiber size resulting in softer hand, better moisture barrier and improved fabric strength. Our syndiotactic propylene polymers also offer advantageous benefits by improving fabric softness and improved bond strengths.
Research and Technology

The Research and Technology Center is dedicated to keeping you and Total Petrochemicals at the forefront of polypropylene technology. Our pilot plant, applications laboratory, and analytical laboratory are seamlessly integrated to be responsive and innovative. Here we provide solutions by testing ideas, evaluating resins, and developing new products. Our focus on product development and customer support yields results.

Your Technical Service representative will help determine the best resin for your application. This determination can be based on physical testing of customer samples, in-depth resin analysis, in-house compounding, and end-use processing. Our versatility allows commercial production conditions to be simulated using both full-scale industrial machines and sophisticated lab lines. Multifilament, slit-film fiber processes can be studied in detail to satisfy specific customer requirements.

The real strength of the Research and Technology Center is our people. As the technical liaison between you and our company, dedicated Technical Service Specialists can help you create and optimize product formulations, troubleshoot problems at your facility and assist in developing your ideas. Through our Technical Service Team you have the coordination, expertise and direct contact needed to develop your growing needs.

Our polypropylene is available in a wide variety of grades, designed to fit your exacting applications. Listed below is a small sample of our industry preferred product line tailored for the nonwoven and textile industries.

3281
3281 is a premium strapping grade offering high melt strength and excellent polymer stability for uniform and consistent heavy-gauge processing.

3365 and 3363
3365 and 3363 are both designed for high speed extrusion and slit-film tape manufacture with extremely low water carry-over and shrinkage characteristics.

3564
3564 is a resin designed for high tenacity staple fiber and filaments formulated to be compatible with UV and pigment concentrates.

3762
3762 is a gas fade resistant resin developed for high tenacity bulked continuous filaments used in moderate denier applications.

3860X
3860X features extremely high purity and is a high flow homopolymer used for processing in micro denier fibers, complies with all applicable FDA regulations for food contact applications and is recommended for nonwoven fiber applications.

3868
3868 is a controlled rheology product for high speed spinning technologies, including spunbond nonwoven fabrics, high speed continuous filament melt spinning applications and extrusion coating of fabrics. It exhibits excellent processability and low smoke characteristics during extrusion.

M3865
M3865 is an isotactic metallocene catalyzed reactor grade designed for high speed melt spinning applications and the manufacture of spunbond nonwoven fabrics. Faster processing speeds, lower smoke generation and higher tenacities produced with finer deniers are key benefits.
CUSTOMER SERVICE

Total Petrochemicals’ uncompromising commitment to service adds immeasurable value to our line of products. Our selection of high quality resins is extensive and no other supplier compares with our brand of customer service. Our support for each customer is ongoing - from initial product trial, through successful commercialization, and on to full optimization. Total Petrochemicals’ sales representatives have on average over 20 years of experience in the fiber and nonwoven industries. They are market application focused, geographically located near our customers and have a global approach to global accounts. Our team of highly experienced Customer Service representatives excel at understanding and responding to your product needs and your critical deadlines. Centrally located in Houston, Texas, this team of skilled professionals is integral to our approach of offering not just products, but solutions.