



SOLVAY

asking more from chemistry®



High-Performance Materials for
Composites

**SPECIALTY
POLYMERS**

Solvay Specialty Polymers offers a broad portfolio of high-performance products for use in the composites industry.

Thermoset Tougheners

Virantage® polyethersulfone (PESU) is a tough, high-temperature additive that enhances open-hole and after-impact compression in thermoset composites. Functionalized and non-functionalized micropowders are available.

Thermoplastic Matrix Resins

KetaSpire® polyetheretherketone (PEEK) combines outstanding chemical resistance and long-term thermal and mechanical stability with excellent strength, stiffness, and fatigue resistance.

AvaSpire® polyaryletherketone (PAEK) is a versatile family of polymers tailored to provide new and unique combinations of thermal, mechanical and chemical performance.

Torlon® polyamide-imide (PAI) offers the highest strength and stiffness of any thermoplastic up to 275 °C (527 °F). It has outstanding resistance to wear, creep, and chemicals – including strong acids and most organics – and is ideally suited for severe service environments.

Solef® polyvinylidene difluoride (PVDF) offers excellent toughness and resiliency up to 120 °C (248 °F) along with the characteristic stability of fluoropolymers when exposed to harsh thermal, chemical and UV environments.

Radel® polyphenylsulfone (PPSU) is an exceptionally damage-tolerant thermoplastic with a long history of success in structural and decorative aircraft cabin interior applications.

Amodel® polyphthalamide (PPA) is a high-temperature polyamide that offers higher thermal capabilities, better chemical resistance and lower moisture absorption than standard polyamides.

Ixef® polyarylamide (PARA) is a specialty polyamide that combines low and slow moisture uptake with high strength and stiffness and a smooth, resin-free surface.

Ryton® polyphenylene sulfide (PPS) offers exceptional chemical resistance at elevated temperatures, comparable to PEEK and fluoropolymers, along with excellent thermal properties for long-term (over 200 °C /392 °F) and short-term use (up to 260 °C/500 °F). It is inherently flame retardant and exhibits excellent dimensional stability under most environmental conditions.

Films

Ajedium™ Films made from fluoropolymers, engineering polymers and high-performance polymers are available in widths up to 1.5 meters (60 inches) with thickness capabilities from 6 microns to 60 mils (1.5 mm). Films made using PMP, PVDF, ECTFE and PEEK provide uniform release from composites and other substrates under pressure, heat or other demanding conditions. Adhesive films made from PSU, PPSU and PEI are also available.

Foams

Tegracore™ PPSU foams are super-tough cores with excellent mechanical and insulative properties, making them uniquely suited to replace honeycomb technology in structural and interior applications. They can be thermoformed into complex 3-D shapes that exhibit excellent FST performance, very low moisture and resin absorption, excellent resistance to aerospace fluids and mechanical properties to 200 °C (392 °F).

Solef® PVDF foams can be molded into complex 3-D shapes that offer excellent FST performance, toughness, resiliency, excellent resistance to aerospace fluids and mechanical properties to 120 °C (248 °F).

www.solvay.com

SpecialtyPolymers.EMEA@solvay.com | Europe, Middle East and Africa

SpecialtyPolymers.Americas@solvay.com | Americas

SpecialtyPolymers.Asia@solvay.com | Asia Pacific

Material Safety Data Sheets (MSDS) are available by emailing us or contacting your sales representative. Always consult the appropriate MSDS before using any of our products. Neither Solvay Specialty Polymers nor any of its affiliates makes any warranty, express or implied, including merchantability or fitness for use, or accepts any liability in connection with this product, related information or its use. Some applications of which Solvay's products may be proposed to be used are regulated or restricted by applicable laws and regulations or by national or international standards and in some cases by Solvay's recommendation, including applications of food/feed, water treatment, medical, pharmaceuticals, and personal care. Only products designated as part of the Solviva® family of biomaterials may be considered as candidates for use in implantable medical devices. The user alone must finally determine suitability of any information or products for any contemplated use in compliance with applicable law, the manner of use and whether any patents are infringed. The information and the products are for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This is not a license under any patent or other proprietary right. All trademarks and registered trademarks are property of the companies that comprise Solvay Group or their respective owners.

© 2015 Solvay Specialty Polymers. All rights reserved. D 03/2012 | R 05/2015 | Version 2.0