



Crastin[®] PBT & Rynite[®] PET Thermoplastic Polyester Resins from Distrupol

Your world class supplier of Celanese polymers

Crastin[®] and Rynite[®] are both exceptional materials for high performance parts in industrial applications. The various grades of both Crastin[®] and Rynite[®] exhibit an outstanding combination of properties, so that they can fulfil the demands of various applications.

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Distrupol, your supply partner for Celanese engineering polymers. Contact us today to find out more!

 **Celanese**
The chemistry inside innovation™

Distrupol is a world class supplier of Celanese polymers, offering a wide range of innovative solutions across multiple industries.

Distrupol and key supply partner Celanese are highly experienced and knowledgeable in providing revolutionary polymer solutions to designers, moulders and OEMs across Europe. With the scientific innovation and expertise of Celanese, and the technical knowledge and commercial experience of Distrupol, we provide a fully integrated approach to our customers' polymer projects.

Technical Support:

With over 50 years of experience and knowledge, we understand the many requirements, considerations and specifications that a project can have. We can help select a 'fit for purpose' solution for your application, recommending the most suitable material(s) and enabling you to get it right first time. Our development engineers can support you with conceptual design, mould flow and tooling, material sampling and process optimisation.

Quality, Certification, Traceability and Confidence:

Material authenticity and traceability is critical when it comes to the manufacture of your components. We can supply certificates of conformity and analysis, and full traceability with every delivery, giving you, and your moulders, confidence that you're using a certified and in-specification material.

An introduction to Crastin® & Rynite®

Crastin® thermoplastic polyester resin is first choice for cost-effective high performance across a wide range of industrial applications. Based on polybutylene terephthalate (PBT) resin, Crastin® is extremely versatile both in unreinforced and glass-reinforced varieties. Crastin® is available in FDA and EU approved grades for food and cosmetics applications, and it meets the most-stringent electrical insulation standards.

Crastin® resins have an outstanding combination of properties, including exceptional dimensional stability, low creep, excellent electrical insulation properties and fantastic surface finishes.



Rynite® thermoplastic polyester resin combines the best properties of reinforced polyethylene terephthalate (PET) with easier processability to produce high-performance parts. Rynite® resins have an outstanding combination of properties, including high strength, stiffness, excellent dimensional stability, outstanding chemical and heat resistance, and good electrical properties.

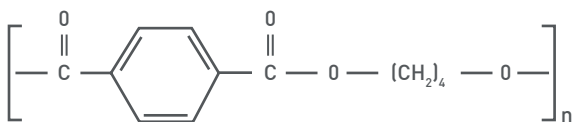
Rynite® resins are noted for their excellent melt flow characteristics, close moulding tolerances, and high productivity from multicavity moulding. The properties, processing characteristics and cost-effectiveness of these resins lead to high value-in-use and lower part costs.



Chemistry

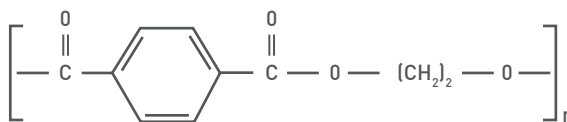
Both Crastin® and Rynite® have very good flow properties. Parts with long flow paths and narrow wall thickness are easily moulded. Good flow properties also contribute to achieving high surface finish quality, even with glass fibre reinforced products.

The chemical structure of Crastin® PBT is:



Crastin® PBT exhibits high modulus, strength, melting point, glass transition temperature and fast crystallisation due to its chemical structure.

The chemical structure of Rynite® PET is:



Rynite® PET exhibits high modulus, strength, melting point, glass transition temperature and slower crystallisation due to its chemical structure.

Range Overview

CRASTIN®	GRADES AVAILABLE	TYPICAL APPLICATIONS
General Purpose / Standard Grades	Unreinforced, 10-20% glass-reinforced, 30% glass fibre-reinforced	Scissor handles, oven knobs, mechanical parts, connectors, zippers, housings, lighting fixtures, lamp parts
Low Warpage	20-30% glass bead filled, 20-30% glass-reinforced	Housings, levers, gears, connectors, switch components, appliance parts
Toughened	Unreinforced, 20-30% glass-reinforced	Housings, fasteners, mechanical parts, car ignition bobbins, coil formers
Flame-Retardant	Unreinforced, 10-20% glass-reinforced, 30% glass fibre-reinforced	Electrical and electronic parts: connectors, capacitors, housings, coil formers, relay parts
Tough & Flame-Retardant	Unreinforced, impact modified, 10-30% glass-reinforced	Electrical and electronic parts demanding good flexibility
Low Warpage & Flame-Retardant	20-30% glass-reinforced	Connectors and housing where low warpage is required
RYNITE®	GRADES AVAILABLE	TYPICAL APPLICATIONS
General Purpose / Standard Grades	30-55% glass-reinforced	Structural and mechanical parts, housings, covers, coil caps and bobbins, lamp housings and sockets, sensor housings, medical devices
Low Warpage	35-40% glass-reinforced	Structural housings and frames, exterior body parts, autoignition parts and bobbins, electrical components
Toughened	15-30% glass-reinforced	Water pump and structural housings, electrical and electronic components, automotive housings and structural parts
Flame-Retardant	30-45% glass-reinforced	Electrical and electronic connectors and other components requiring flame-retardant characteristics
Special Grades	Modified PET with 30-43% glass-reinforcement	Toaster housings, oven handles, electrical and electronic components

Product Properties

Crastin® PBT

- High stiffness
- Dimensional stability at high temperatures (130°C-150°C)
- Colour stability at elevated temperatures
- Creep resistance
- Good electrical insulation (up to Class F)
- High surface gloss
- Good UV resistance

Rynite® PET

- High stiffness
- Dimensional stability at high temperatures (155°C-200°C)
- Colour stability at high temperatures
- Creep resistance
- Flame & glow wire resistance
- Good electrical insulation (up to Class H)
- High surface gloss
- UV resistance
- Easy to process

Examples



The high temperature resistance and cost-effectiveness of Crastin® makes the material ideal for applications such as headlight bezels.



The stiffness and strength qualities of Rynite® are key factors in limiting blade deflection and preventing deformation in boat propellers.



The mechanical properties of Crastin®, in particular its stiffness, make it ideal for cosmetics packaging applications such as eyeliner stems.



Rynite® is used for automotive and electrical applications such as automotive connectors due to its electrical insulation, high temperature resistance and mechanical properties.

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