



Teflon™ PTFE 807N X

Granular Fluoroplastic Resin

Product Information

Description

Teflon™ PTFE 807N X is a free-flowing PTFE granular resin designed for compression or automatic molding and ram extrusion (low back pressure). It offers an excellent combination of properties that are characteristic of Teflon™ fluoroplastic resins:

- Chemical inertness
- Exceptional dielectric properties
- Heat resistance
- Toughness and flexibility
- Low coefficient of friction
- Non-stick characteristics
- Negligible water absorption
- Excellent weather resistance

Teflon™ PTFE 807N X is a multi-purpose PTFE resin that yields high productivity due to its high fill density. It is easy to process, handle, and machine. It also has excellent end-use properties.

Typical Applications

Can be fabricated into billets for skived tape, basic shapes, and moldings.

It can be used for applications such as:

- Seals
- Valve seats
- Bearing pads
- Linings
- Gaskets
- Electrical/electronic parts

Processing

Teflon™ PTFE 807N X can be used in conventional PTFE processing techniques. In compression molding, a preform is made at room temperature and subsequently sintered at 365–380 °C (689–716 °F). Preform pressures of 20–50 MPa may be used. Mold shrinkage and tensile properties vary with preform pressure, sintering conditions, and geometry of the part.

Food Contact Compliance

Properly processed products (sintered at high temperatures common to the industry) made from Teflon™ PTFE 807N X resin can qualify for use in contact with food in compliance with FDA 21 CFR 177.1550 and European Regulation (EU) No. 10/2011. For details and information, please contact your Chemours representative.

Safety Precautions

Before processing any fluoroplastics, read the Material Safety Data Sheet, available upon request from our Customer Service Group at (844) 773-CHEM/2436 in the U.S. or (302) 773-1000 outside of the U.S. Also read the detailed information in the latest edition of the “Guide to the Safe Handling of Fluoropolymer Resins,” published by the Fluoropolymers Division of The Society of the Plastics Industry (www.fluoropolymers.org) or by PlasticsEurope (www.plasticseurope.org).

Storage and Handling

Preforming is easiest when the resin is uniformly between 21–27 °C (70–80 °F). As temperatures decline below this range, the resin will be increasingly difficult to mold without cracks and problems with condensed moisture. Higher temperatures inhibit flow and promote lumping. Storage conditions should be set accordingly. Cleanliness is a critical requirement for successful use of Teflon™ PTFE 807N X.

The white resin and high sintering temperatures cause even small foreign particles to become visible in finished moldings. Keep resin drums closed and clean. Good housekeeping and careful handling are essential.

Packaging

Teflon™ PTFE 807N X is packaged in 50-kg (110-lb) plastic boxes. For shipping convenience, orders of 600-kg (1,323-lb) (12 boxes/pallet) are recommended.

Typical Property Data for Teflon™ PTFE 807N X Granular Fluoroplastic Resin*

Property	Test Method		Unit	Typical Value
Particle Size, Average Diameter	ISO 13320	ASTM D4894	µm	550
Standard Specific Gravity	ISO 12086	ASTM D4894		2.16
Bulk Density	ISO 12086	ASTM D4894	g/L	900
Tensile Strength	ISO 12086	ASTM D4894	psi (MPa)	4786 (33.0)
Elongation at Break	ISO 12086	ASTM D4894	%	320
Melting Peak				
Initial	ISO 12086	ASTM D4894	°C (°F)	344 (651) ± 10
Second	ISO 12086	ASTM D4894	°C (°F)	327 (621) ± 10
Thermal Instability Index	ISO 12086	ASTM D4894		5
Water Content	ISO 12086	ASTM D4894	%	<0.04

Teflon™ PTFE 807N X meets the requirements of ASTM D4894-15, Type IV, Grade 2, except Tensile Strength and Elongation at Break.

*Typical properties are not suitable for specification purposes.

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