Teflon™ PTFE NXT 75

Modified Granular Fluoroplastic Resin

Product Information

Description

Teflon™ PTFE NXT 75 is a chemically modified PTFE polymer. When properly processed, 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

In addition, this resin offers improved resistance to deformation under load, increased resistance to permeation of chemicals, and a higher dielectric breakdown voltage. It also provides a high degree of weldability for applications where the use of elevated pressure and temperature are limited.

Typical Applications

Teflon™ NXT 75 is a fine-cut resin designed for general compression molding of blocks and sheets. It can be used for:

- Seal rings
- Valve seats
- Bearing pads
- Linings

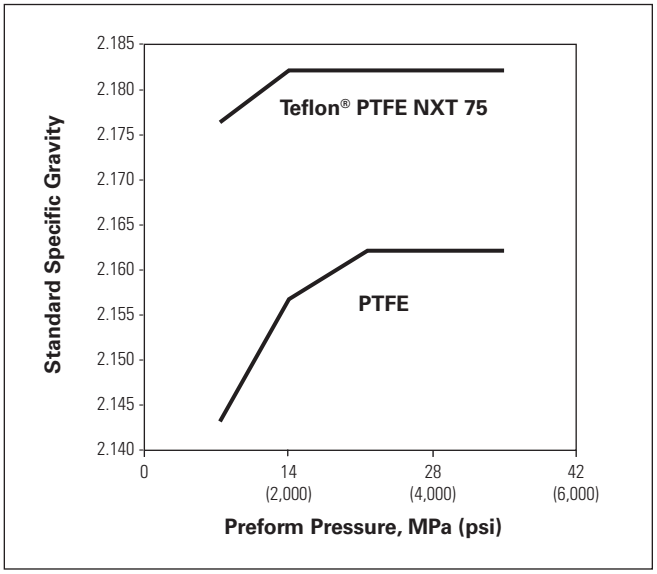
It can also be used as a base resin for filled compounds. Teflon™ PTFE NXT 75 is particularly useful in applications where welding of parts to other fluoroplastics such as PFA or standard PTFE is required, e.g., fluid-handling systems.

Processing

Teflon™ NXT 75 may be converted by compression molding techniques. A preform made at room temperature at the recommended pressure of 14 MPa (2,000 psi) can subsequently be sintered. Refer to the typical property data in Table 1.

Of particular significance for sheet molding is the fact that maximum density after sintering is reached at lower pressures when compared with non-modified granular grades as shown in Figure 1. This allows for the production of larger sheets with existing equipment.

Figure 1. Effect of Preform Pressure on Standard Specific Gravity



Chemours™

Food Contact Compliance

Properly processed products (sintered at high temperatures common to the industry) made from Teflon™ NXT 75 resin can qualify for use in contact with food in compliance with FDA Regulation 21 CFR 177.1550.

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 between 21–27 °C (70–80 °F). As temperature declines 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™ NXT 75. The white resin and high sintering temperatures cause even very small foreign particles to become visible in finished moldings.

Keep resin drums closed and clean. Good housekeeping and careful handling are essential.

Packaging

Teflon™ NXT 75 is packaged in 40-kg (88-lb) drums. Each drum has a bag liner made of polyethylene resin.

Table 1. Typical Property Data for Teflon™ PTFE NXT 75 Modified Granular Fluoroplastic Resin*

Property	Test Method	Unit	Typical Value
Average Bulk Density	ASTM D4894	g/L	400
Average Particle Size	ASTM D4894	µm	33
Standard Specific Gravity	ASTM D4894		2.17
Tensile Strength	ASTM D4894	psi (MPa)	6000 (41.4)
Elongation at Break	ASTM D4894	%	600
Deformation Under Load 14 MPa (2,000 psi), 23 °C (73 °F), 24 hr	D621 Method A	%	3.2

Teflon™ PTFE NXT 75 meets the requirements of ASTM D4894-15, Type III, Grade 1.
*Typical properties are not suitable for specification purposes.

For more information, visit teflon.com/industrial
For sales and technical support contacts, visit teflon.com/industrialglobalsupport

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