



# Teflon®

Fluoropolymer

## Teflon® 807-N PTFE granular moulding resin

### Typical applications

Billets for skived tape, basic shapes and mouldings by compression and automatic moulding. It can be used for such applications as: seals, valve seats, bearing pads, linings, gaskets, electrical/electronic parts.

### Description

Teflon® 807-N is one of DuPont's free flowing PTFE granular resins designed for compression moulding and ram extrusion (low back pressure).

It offers the excellent combination of properties characteristic of Teflon® fluoropolymer resins: non-ageing characteristics, chemical inertness, exceptional dielectric properties, heat resistance, toughness and flexibility, low coefficient of friction, non-stick characteristics, negligible moisture absorption and excellent weather resistance.

Teflon® 807-N is a multi-purpose PTFE resin which yields high productivity due to its high fill density. It has an excellent combination of handleability, processability, machinability and end-use properties.

*Teflon® 807-N meets the requirements of ASTM D 4894-91a, type IV, grade 2 (except for tensile properties).*

### Processing

Teflon® 807-N may be converted by all conventional PTFE processing techniques. For instance, in compression moulding a preform is made at room temperature at the recommended pressure of 35 MPa and subsequently sintered at 365 to 380°C.

Preform pressures in the range from 20 MPa to 50 MPa may be used. As with all resins, mould shrinkage and tensile properties vary with preform pressure, sintering conditions and geometry of the part.

### Safety precautions

Industrial experience has proven that adequate ventilation, in properly maintained processing and handling areas, will eliminate known hazards to personnel. Resin containers should be opened and used in well-ventilated areas.

Equipment used to process at melt temperatures should be provided with local exhaust ventilation to completely remove all fumes and vapours from the processing area.

In addition, care should be exercised to avoid the contamination of cigarettes and other forms of smoking tobacco when using fluoropolymer resins.

Before using fluoropolymer resins, read the Material Safety Data Sheet (MSDS) and the detailed information in "Guide for the safe handling of Fluoropolymer Resins" published by APME. Copies can be obtained through your local DuPont representative.

### Packaging

Teflon® 807-N is packaged in 50 kg plastic drums. For convenient shipment, orders of 400 kg (8 drums/one full pallet) are recommended.

## Typical Property Data for Teflon® 807-N

Property	Test method <sup>1)</sup>		Unit	Typical value
<b>General</b>				
Particle size, average diameter		DuPont	µm	600
Standard specific gravity	ISO 12086	D 4894		2,156
Bulk density	ISO 12086	D 4894	g/l	950
Diameter shrinkage (at preform pressure of 35 MPa)		DuPont	%	2,5
Tensile strength (using 76 mm test disk)	ISO 12086	D 4894	MPa	26
Elongation	ISO 12086	D 4894	%	260
<b>Mechanical</b>				
Tape skived <sup>2)</sup> from moulded billets (size 100 × 20 mm)				
Fill density		DuPont	g/l	975
Preform pressure			MPa	35
Compression ratio				2,2
Height expansion			%	7,2
Mould shrinkage			%	2,4
Tensile strength MD <sup>3)</sup>	ISO 12086	D 638	MPa	33
Tensile strength CD <sup>4)</sup>	ISO 12086	D 638	MPa	33
Elongation MD	ISO 12086	D 638	%	320
	ISO 12086	D 638	%	320
Specific gravity	ISO 1183	D 792		2,17
<b>Other</b>				
Water absorption		D 570	%	<0,01
Weather and chemical resistance				Excellent

**Note:** Teflon® 807-N meets the requirements of ASTM D 4894-91a, type IV, grade 2 (except for tensile properties).  
Typical properties are not suitable for specification purposes.

1) ASTM unless otherwise specified.

2) Tape thickness 0,5 mm.

3) MD measured in preforming direction.

4) CD measured perpendicular to preforming direction.

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