

## FEP: Fluorinated Ethylene Propylene



### PRODUCT DESCRIPTION

FEP is a copolymer of tetrafluoroethylene and hexafluoropropylene. This melt-processible fluoropolymer exhibits excellent resistance to heat, wear and chemicals.

Afton Plastics processes the following grades of FEP:

Teflon™ fluoroplastics by The Chemours Company grades 100 and 9302 and Daikin Neoflon® grades NP-101 and NP-130.

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### PRODUCT BENEFITS

- Negligible moisture absorption
- Low coefficient of friction
- Non-stick surfaces
- Chemically inert to most industrial chemicals and solvents
- Exceptional dielectric insulation properties
- High degree of stress crack resistance
- Very low gas permeation and outgassing
- Compatible with hot air welding equipment
- Temperature range: -400°F to +392°F
- High resistance to outdoor weathering

### TYPICAL APPLICATIONS

- Pump housings and pipe linings
- Fluid handling or chemical processing equipment
- Semiconductor wet bench equipment
- Hostile environment involving chemical, thermal or mechanical stress
- Food processing and packaging equipment
- Medical components

### MATERIAL CLASS

- ASTM D 2116 (Type I, II, III, or IV)
- USDA and FDA compliant per 21 CFR-177.1550
- 3A Sanitary Standard 20-17
- USP Class VI

# Teflon™ FEP by Chemours™ Data Sheet

**PROPERTY**
**GRADE**
**MECHANICAL/PHYSICAL**
**ASTM METHOD**
**UNIT**
**9302**

Melt Flow Rate

D2216

g/10 min

2 - 3.9

Specific Gravity

D792

 g/cm<sup>3</sup>

2.12 - 2.17

Water Absorption, 24 hr.

D570

%

&lt; 0.01

Tensile Strength, 23°C

D638

psi

4,350

Ultimate Elongation, 23°C

D638

%

300 - 325

Impact Strength, 23°C, Notched Izod

D256

J/m

no break

Flexural Modulus, 23°C

D790

psi

95,000

Durometer Hardness, Shore D

D2240

D

55 - 56

Coefficient of Friction

D1894

0.25

**THERMAL**

Melting Point, Nominal

D3418

°C

255 - 260

Oxygen Index

D2863

%

&gt; 95

Continuous Service Temperature

°C

205

Flammability

UL 94

V-0

**ELECTRICAL**

Surface Resistivity

D257

ohm-sq

 10<sup>16</sup>

Volume Resistivity

D257

ohm-cm

 10<sup>18</sup>

Dielectric Strength Short Time (10 mil film)

D149

Volts/mil

2,000

 Dielectric Constant, 23°C, 10<sup>3</sup> Hz, Maximum

D150

2.15

 Dissipation Factor, 23°C, 10<sup>3</sup> Hz, Maximum

D150

0.0003

Arc Resistance

D495

seconds

&gt; 180

Information provided by Chemours™.

Note: The data provided in this table are typical for the resins tested and do not represent product specifications.