DESCRIPTION

This is a fluorinated thermoplastic copolymer. Outstanding characteristics: chemical resistance, imperviousness to UV, high barrier properties, high purity and high temperature resistance properties.

Commercial Name:..... PVDF
Catalog Code:..... PVDF
Chemical Name: ..... Polyvinylidene Fluoride
Used On:..... Cable ties

Recycling Symbol:

>PVDF<
or
7
OTHER

GENERAL PERFORMANCE CHARACTERISTICS

Heat Resistance	Very Good
Impact Resistance	Good
Moisture Sensitivity	Low
UV Resistance	Excellent
Flame Spread	Very Low
Smoke Generation	Low

PERFORMANCE ADDITIVES

Glass	None
Mineral	None
Carbon	None
Halogens	Fluorine is part of base material No chlorine is used

CONDITIONING None: PVDF absorbs ≤0.1% moisture in a 24-hour period

CHEMICAL RESISTANCE

Acids	Excellent
Bases	Excellent
Solvents	Excellent
Gasoline	Excellent
Oil	Excellent
Salt Water	Excellent

MAJOR TOXIC ELEMENTS

Under normal temperature this material is inert. However, when melting temperature (300 to 350°C) are encountered hydrogen fluoride gases or fumes are emitted which are considered toxic and harmful.

APPROVALS

None

PROPERTIES CHART

	Dry	Units	Test Method
FLAMMABILITY			
UL Flammability, 1.5 mm	V-0	-	UL 94
Oxygen Index	43	%	ISO 4589-2
PHYSICAL			
Specific Gravity	1.77 – 1.80	- (1)	ASTM D792
Melt Volume-Flow Rate (MVR) 232°C/3.8 kg	15	cm^3/10 min	ISO 1133
MECHANICAL			
Tensile Modulus	1300 (188549)	MPa (psi)	ISO 527-2
Tensile Stress at Yield	40 (5802)	MPa (psi)	ISO 527-2
Tensile Strain at Yield	10	%	ISO 527-2
Nominal Tensile Strain at Break	>50	%	ISO 527-2
Charpy Notched Impact Strength, 23°C	8 (3.8)	KJ/m^2 (ft-lb/in^2)	ISO179/1eA
THERMAL			
Continuous Operating Temp	-40 to 140 (-40 to 284)	°C (°F)	UL 746
Heat Deflection Temperature 1.8 MPa, Unannealed	46 (115)	°C (°F)	ISO 75-2/A
Glass Transition Temperature	-40 (-40)	°C (°F)	ISO 11357-2
Melting Temperature	157 (315)	°C (°F)	ISO 11357-3

(1) Quantity is unit less. Use g/cm^3 to convert to density units.