DESCRIPTION

Modified POM copolymer. Easy flowing, elastomer-containing injection molding type in color black; especially weathering resistant, lower chemical resistance than our standard acetal; high resistance to thermal and oxidative degradation. Ranges of applications: for molded parts with matt surface.

Commercial Name:..... Acetal
Catalog Code:..... POMUV
Chemical Name: ..... Polyoxymethylene
Used On:..... Exterior applications, automotive channels

Recycling Symbol:

>POM<
or
7
OTHER

GENERAL PERFORMANCE CHARACTERISTICS

Heat Stabilized	Excellent
High Impact	Good
Moisture Sensitivity	Low
UV Resistance	Excellent

PERFORMANCE ADDITIVES

Glass	None
Mineral	None
Carbon Black	Contains significant amount of carbon black or other UV absorbing additives to be considered UV resistance

PROCESS ADDITIVES

Fillers	None
Shrink Additives	None

CONDITIONING

None needed. Properties do not improve with moisture absorption.

CHEMICAL RESISTANCE

Acids	Not suitable in strong acids
Bases	Not suitable in strong acids
Solvents	Excellent
Gasoline	Excellent
Oil	Good resistance to base oils and hydraulic fluids
Chlorine	Attacked by chlorine at concentrations of 3 to 5 ppm and higher.
Zinc Chloride	Not recommended. Zinc chloride acts to depolymerize (corrode) acetal resin. Not recommended where continuous exposure to salt water and contact with zinc plated steel (galvanized) is encountered due to an effect similar to corrosion by zinc chloride.
Ivory liquid	Not recommended
Antifreeze	Not recommended
Autoclave	This material should not be effected when used in an autoclave steam sterilization process at temperatures up to 250°F (121°C) for 25 minutes.

MAJOR TOXIC ELEMENTS

This product is essentially inert and nontoxic. However, if it is overheated or burns, gases such as carbon monoxide and formaldehyde may be released.

APPROVALS

Ford, Federal FMVSS302

Use in space is possible but may outgass Formaldehyde in vacuum. Gamma radiation causes loss in tensile strength and hardness.

PROPERTIES CHART

	Dry	Units	Test Method
FLAMMABILITY			
Flammability @1.5 & 3.0 mm	HB	-	UL 94
PHYSICAL			
Density	1.39 (0.05)	g/cm^3 (lb/in^3)	ISO 1183
Melt Volume-Flow Rate (190°C/2.16 Kg)	21.0 (1.28)	cm^3/10min (in^3/10min)	ISO 1183
Water absorption, saturation 23°C (73°F)	0.70	%	ISO 62
MECHANICAL			
Tensile Strength at Yield	46 (6670)	MPa (psi)	ISO 527-2/1A/50
Tensile Strain at Yield	8	%	ISO 527-2/1A/50
Tensile Modulus	2000 (290)	MPa (kpsi)	ISO 527-2/1A/1
Flexural Modulus 23°C (73°F)	2100 (305)	MPa (kpsi)	ISO 178
Charpy Notched Impact @-30°C (-22°F) @23°C (73°F)	8 (3.8) 11 (5.2)	kJ/m^2 (ft lb/in^2)	ISO 179/1eA
Charpy Unnotched Impact @-30°C (-22°F) @23°C (73°F)	110 (52) 150 (71)	kJ/m^2 (ft lb/in^2)	ISO 179/1eU
THERMAL			
Continuous Operating Temp RTI Strength @ 1.5 & 3.0 mm	105 (221)	°C (°F)	UL 746B
RTI Electrical @ 1.5 & 3.0 mm	105 (221)	°C (°F)	UL 746B
RTI Impact @ 1.5 & 3.0 mm	95 (203)	°C (°F)	UL 746B
Heat Deflection Temperature 264 psi (1.8 MPa) Unannealed	84 (183)	°C (°F)	ISO 75-2/A
Melting Temperature	166 (331)	°C (°F)	ISO 11357-3
CLTE - Flow	1.2E-4 (6.7E-5)	cm/cm/°C (in/in/°F)	ISO 11359-2
PROCESSING			
Melt Temperature Range	190-200 (374-392)	°C (°F)	-