

## CPC - Vycom FLAMETEC™ HALAR® 901 Opaque Ethylene Chlorotrifluoroethylene (ECTFE)

Category : Polymer , Thermoplastic , Fluoropolymer , ETFE/ECTFE

### Material Notes:

Flametec™ Halar® ECTFE (Ethylene Chlorotrifluoroethylene) is an ultra-pure fluoropolymer that is a tough engineering thermoplastic with a balance of physical and chemical properties that qualify it for high performance service in a wide range of applications. It is mechanically both strong and tough, exhibiting high dielectric strength, and can be used in applications over a broad temperature range. As a fluoropolymer, it is highly resistant to most environmental conditions, including corrosive chemicals and organic solvents, strong acids, alkaline, peroxide and SC1 and SC2 chemistries, and aqueous caustics for handling wet or dry chlorine, bromine, and other halogens. FEATURES AND BENEFITS Purity- Halar has a very low extractable and leaching levels for the most demanding semiconductor applications. Weldability- Easy to fabricate with conventional welding equipment. Extremely strong welds. Strength- High tensile properties and it is very ductile. Economics- The cost of Halar is easily offset by the expense that would normally be incurred by fire suppression equipment. Fire Safe- Accepted in accordance to FM4910, fire safe materials for clean room construction. Extruded Sheet- Offers the best gauge consistency, surface and tolerances. Information provided by Compression Polymers Corp - Vycom

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_CPC-Vycom-FLAMETEC-HALAR-901-Opaque-Ethylene-Chlorotrifluoroethylene-ECTFE.php](http://www.lookpolymers.com/polymer_CPC-Vycom-FLAMETEC-HALAR-901-Opaque-Ethylene-Chlorotrifluoroethylene-ECTFE.php)

Physical Properties	Metric	English	Comments
Density	1.68 g/cc	0.0607 lb/in <sup>3</sup>	ASTM D792
Water Absorption	<= 0.10 %	<= 0.10 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	90	90	ASTM D785
Hardness, Shore D	71	71	ASTM D785
Tensile Strength, Ultimate	53.8 MPa	7800 psi	ASTM D638
Tensile Strength, Yield	29.6 MPa	4300 psi	ASTM D638
Elongation at Break	250 %	250 %	ASTM D638
Flexural Modulus	1.69 GPa	245 ksi	ASTM D790
Izod Impact, Notched	NB	NB	ASTM D256
	1.23 J/cm	2.30 ft-lb/in	ASTM D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Taber Abrasion, mg/1000 Cycles	0.0060	0.0060	ASTM D1044

Thermal Properties	Metric	English	Comments
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Thermal Properties CTE, linear	Metric 101 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	English 56.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	Comments ASTM D696
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Maximum Service Temperature, Air	149 $^\circ\text{C}$	300 $^\circ\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	90.0 $^\circ\text{C}$	194 $^\circ\text{F}$	ASTM D648
Oxygen Index	$\geq 52\%$	$\geq 52\%$	ASTM D863

Descriptive Properties	Value	Comments
Biofilm Buildup	1	CDI
Factory Mutual	4910 Listed	File #4D7Q9.AM
Mean Roughness	0.15	SDI
Notch Sensitivity	Not Sensitive	

## Contact Songhan Plastic Technology Co.,Ltd.

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