

## Asahi Kasei Tenac®-C 4510 Acetal Copolymer, General Purpose (discontinued \*\*)

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Unreinforced

### Material Notes:

General-purpose grade, characterized by balanced flowability and mechanical properties. Applications: Gears, cams, hose joints, clips, switches, mechanical parts of audio and video equipment. This product is not a part of the standard product line dated 2003.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Asahi-Kasei-Tenac-C-4510-Acetal-Copolymer-General-Purpose-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Asahi-Kasei-Tenac-C-4510-Acetal-Copolymer-General-Purpose-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Density	1.41 g/cc	0.0509 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.20 %	0.20 %	ASTM D570
Linear Mold Shrinkage	0.016 - 0.020 cm/cm	0.016 - 0.020 in/in	Asahi Chemical test
Melt Flow	9.0 g/10 min	9.0 g/10 min	melt index; ASTM D1238
Spiral Flow	42.0 cm	16.5 in	120°C; injection pressure 74 MPa

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	80	80	ASTM D785
Hardness, Rockwell R	115	115	ASTM D785
Tensile Strength, Ultimate	60.8 MPa	8820 psi	5 mm/min; parallel to flow; ASTM D638
Elongation at Break	60 %	60 %	5 mm/min; parallel to flow; ASTM D638
Flexural Yield Strength	88.0 MPa	12800 psi	ASTM D790
Flexural Modulus	2.60 GPa	377 ksi	ASTM D790
Fatigue Strength	27.0 MPa @# of Cycles 1.00e+6	3920 psi @# of Cycles 1.00e+6	
Izod Impact, Notched	0.590 J/cm	1.11 ft-lb/in	ASTM D256
	0.540 J/cm @Temperature -30.0 °C	1.01 ft-lb/in @Temperature -22.0 °F	
Coefficient of Friction, Dynamic	0.35	0.35	thrust type on steel or vs. itself, 0.2 MPa and 10 cm/sec
Limiting Pressure Velocity	0.590 MPa-m/sec	16800 psi-ft/min	thrust type test vs. steel; 1 MPa

Taber Abrasion, mg/1000 Cycles Mechanical Properties	Metric	English	ASTM D1044 Comments
---	--------	---------	------------------------

Thermal Properties	Metric	English	Comments
CTE, linear	100 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 20.0 $^{\circ}\text{C}$	55.6 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 68.0 $^{\circ}\text{F}$	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	158 $^{\circ}\text{C}$	316 $^{\circ}\text{F}$	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	110 $^{\circ}\text{C}$	230 $^{\circ}\text{F}$	ASTM D648
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
Surface Resistance	1.00e+16 ohm	1.00e+16 ohm	ASTM D257
Dielectric Constant	3.7 @Frequency 1000 - 1.00e+6 Hz	3.7 @Frequency 1000 - 1.00e+6 Hz	50% RH; ASTM D150
Dielectric Strength	20.0 kV/mm @Thickness 2.20 mm	508 kV/in @Thickness 0.0866 in	ASTM D149
Dissipation Factor	0.0050 @Frequency 1e+6 Hz	0.0050 @Frequency 1e+6 Hz	50% RH; ASTM D150
Arc Resistance	240 sec	240 sec	ASTM D495

Processing Properties	Metric	English	Comments
Processing Temperature	180 - 200 $^{\circ}\text{C}$	356 - 392 $^{\circ}\text{F}$	Resin temp
Mold Temperature	40.0 - 80.0 $^{\circ}\text{C}$	104 - 176 $^{\circ}\text{F}$	

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China