

TENAC™-C 3510

Asahi Kasei Corporation - Acetal (POM) Copolymer

General Information
General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Features	• Creep Resistant • Fatigue Resistant • High Viscosity
Uses	• Automotive Applications • Engineering Parts • Housings • Bearings • Gears
Automotive Specifications	• MERCEDES BENZ DBL 5403.00 • MERCEDES BENZ DBL 5410.00
Part Marking Code (ISO 11469)	• >POM<

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.41		ASTM D792
Density	1.41	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.8	g/10 min	ISO 1133
Molding Shrinkage - Flow	0.016 to 0.020	in/in	Internal Method
Water Absorption (24 hr, 73°F, 50% RH)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	363000	psi	ISO 527-1
Tensile Strength	8990	psi	ASTM D638
Tensile Stress (Yield)	8990	psi	ISO 527-2
Tensile Strain (Yield)	11	%	ISO 527-2
Tensile Elongation (Break)	40	%	ASTM D638
Nominal Tensile Strain at Break	40	%	ISO 527-2
Flexural Modulus	355000	psi	ASTM D790
Flexural Modulus	348000	psi	ISO 178
Flexural Strength	12800	psi	ASTM D790
Taber Abrasion Resistance	14.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	4.3	ft·lb/in ²	ISO 179
Notched Izod Impact	1.8	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	78		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	316	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	313	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	230	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	203	°F	ISO 75-2/A
CLTE - Flow	5.6E-5	in/in/°F	ASTM D696
CLTE - Flow	5.6E-5	in/in/°F	ISO 11359-2
Specific Heat	0.350	Btu/lb/°F	
Thermal Conductivity	1.6	Btu·in/hr/ft ² /°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16 to 1.0E+17	ohms	ASTM D257
Volume Resistivity (73°F)	1.0E+15 to 1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	480	V/mil	ASTM D149
Dielectric Constant (73°F, 1 MHz)	3.90		ASTM D150



Dissipation Factor (73°F, 1 MHz)	8.0E-3	ASTM D150
Arc Resistance	250 sec	ASTM D495
Flammability	Nominal Value	Unit
Flame Rating		UL 94
0.03 in	HB	
0.06 in	HB	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Hot Air Dryer	176 to 194	°F
Drying Time - Hot Air Dryer	3.0 to 4.0	hr
Processing (Melt) Temp	356 to 410	°F
Mold Temperature	> 140	°F

Notes

¹ Typical properties: these are not to be construed as specifications.

