

TENAC™-C 4513

Asahi Kasei Corporation - Acetal (POM) Copolymer

General Information

General

Features AKEP website	• Weather & UV Resistant	
Uses	• Automotive Interior Parts • Engineering Parts	• Gears • Housings
Part Marking Code (ISO11469) (ISO 11469)	• >POM<	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.41	g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0	g/10 min	ISO 1133
Molding Shrinkage - Flow	1.6 to 2.0	%	Internal Method
Water Absorption (24 hr, 23°C, 50% RH)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2550	MPa	ISO 527-1
Tensile Stress			
Yield	63.0	MPa	ISO 527-2
--	62.0	MPa	ASTM D638
Tensile Elongation (Break)	35	%	ASTM D638 ISO 527-2
Flexural Modulus			
--	2500	MPa	ASTM D790
--	2450	MPa	ISO 178
Flexural Strength	88.0	MPa	ASTM D790
Taber Abrasion Resistance	14.0	mg	ASTM D1044

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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	7.0	kJ/m²	ISO 179
Notched Izod Impact	60	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	80		
R-Scale	115		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	158	°C	ASTM D648
0.45 MPa, Unannealed	154	°C	ISO 75-2/B
1.8 MPa, Unannealed	110	°C	ASTM D648
1.8 MPa, Unannealed	97.0	°C	ISO 75-2/A
CLTE - Flow	1.0E-4	cm/cm/°C	ASTM D696 ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16 to 1.0E+17	ohms	ASTM D257
Volume Resistivity (23°C)	1.0E+15 to 1.0E+16	ohms·cm	ASTM D257
Dielectric Strength	19	kV/mm	ASTM D149
Arc Resistance	250	sec	ASTM D495

Processing Information			
Injection	Nominal Value	Unit	
Drying Temperature - Hot Air Dryer	80 to 90	°C	
Drying Time - Hot Air Dryer	3.0 to 4.0	hr	
Processing (Melt) Temp	180 to 210	°C	
Mold Temperature	> 60	°C	

Notes

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