



TENAC™-C 4520

Asahi Kasei Corporation - Acetal (POM) Copolymer

General Information			
General			
Uses	- Automotive Applications - Engineering Parts	- Gears - General Purpose	Housings
Automotive Specifications	- BOSCH 5515265 025 - BOSCH 5515265 905 Color: Black - BOSCH N28 BN22 -O006	- GM GMP.POM.005 Color: Natural - GM GMW22P-POM-C2 - VOLKSWAGEN KTHB 041 Color: Black	VOLKSWAGEN KTHB 909
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403)		
Part Marking Code (ISO11469) (ISO 11469)	>POM<		

ASTM & ISO Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.41	g/cm³	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

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Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2700	MPa	ISO 527-1
Tensile Stress			
Yield	63.0	MPa	ISO 527-2
--	63.0	MPa	ASTM D638
Tensile Elongation (Break)	35	%	ASTM D638 ISO 527-2
Flexural Modulus			
--	2550	MPa	ASTM D790
--	2500	MPa	ISO 178
Flexural Strength	90.0	MPa	ASTM D790
Taber Abrasion Resistance	14.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	7.0	kJ/m ²	ISO 179
Notched Izod Impact	77	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	156	°C	ISO 75-2/B
1.8 MPa, Unannealed	110	°C	ASTM D648
1.8 MPa, Unannealed	100	°C	ISO 75-2/A
CLTE - Flow	1.0E-4	cm/cm/°C	ASTM D696 ISO 11359-2
Specific Heat	1470	J/kg/°C	
Thermal Conductivity	0.23	W/m/K	
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
Dielectric Constant (23°C, 1 MHz)	3.90		ASTM D150
Dissipation Factor (23°C, 1 MHz)	8.0E-3		ASTM D150
Arc Resistance	250	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.75 mm	HB		
1.5 mm	HB		

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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

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Curve Data

Isothermal Stress vs. Strain (ISO 11403)

