

TENAC™-C HC450

Asahi Kasei Corporation - Acetal (POM) Copolymer

General Information

General	
Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Uses	• Automotive Applications • Gears • Housings • Engineering Parts • General Purpose
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)	8.0	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	406000	psi	ISO 527-1
Tensile Strength	9570	psi	ASTM D638
Tensile Stress (Yield)	9720	psi	ISO 527-2
Tensile Elongation (Break)	35	%	ASTM D638
Nominal Tensile Strain at Break	35	%	ISO 527-2
Flexural Modulus	389000	psi	ASTM D790
Flexural Modulus	384000	psi	ISO 178
Flexural Strength	13800	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	3.3	ft·lb/in ²	ISO 179
Notched Izod Impact	1.6	ft·lb/in	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	90		
R-Scale	117		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	325	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	320	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	255	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	221	°F	ISO 75-2/A
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
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.031 in)	HB		UL 94

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.

