

**TENAC™-C CF452**

Asahi Kasei Corporation - Acetal (POM) Copolymer

**General Information**
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Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight
Features	• Electrically Conductive
Uses	• Engineering Parts • Gears • Housings
Part Marking Code (ISO 11469)	• >POM-CF10<

**Properties <sup>1</sup>**

<b>Physical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Density / Specific Gravity	1.43		ASTM D792
Density	1.43	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0	g/10 min	ISO 1133
Molding Shrinkage - Flow	3.0E-3 to 6.0E-3	in/in	Internal Method
Molding Shrinkage - Across Flow	8.0E-3 to 0.012	in/in	Internal Method
Water Absorption (24 hr, 73°F, 50% RH)	0.20	%	ASTM D570
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus	1.09E+6	psi	ISO 527-1
Tensile Strength	14600	psi	ASTM D638
Tensile Stress (Break)	16000	psi	ISO 527-2
Tensile Elongation (Break)	5.0	%	ASTM D638
Tensile Strain (Break)	2.0	%	ISO 527-2
Flexural Modulus	1.02E+6	psi	ASTM D790
Flexural Modulus	1.02E+6	psi	ISO 178
Flexural Strength	22500	psi	ASTM D790
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength	1.9	ft·lb/in <sup>2</sup>	ISO 179
Notched Izod Impact	0.62	ft·lb/in	ASTM D256
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Rockwell Hardness (M-Scale)	90		ASTM D785
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	324	°F	ASTM D648
Deflection Temperature Under Load (66 psi, Unannealed)	329	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	284	°F	ASTM D648
Deflection Temperature Under Load (264 psi, Unannealed)	322	°F	ISO 75-2/A
CLTE - Flow	3.3E-5	in/in/°F	ASTM D696
CLTE - Flow	3.3E-5 to 5.0E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	5.0E-5	in/in/°F	ASTM D696
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	1.0E+3 to 1.0E+4	ohms	ASTM D257
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating (0.030 in)	HB		UL 94

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

