



TENAC™-C CF452

Asahi Kasei Corporation - Acetal (POM) Copolymer

Tuesday, February 15, 2022

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber		
Features	• Copolymer • Electrically Conductive	• High Stiffness • High Strength	• Medium Viscosity
Uses	• Engineering Parts	• Gears	• Housings
Part Marking Code (ISO11469) (ISO 11469)	• >POM-CF10<		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.43	g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0	g/10 min	ISO 1133
Molding Shrinkage			Internal Method
Flow	0.30 to 0.60	%	
Across Flow	0.80 to 1.2	%	
Water Absorption (24 hr, 23°C, 50% RH)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7500	MPa	ISO 527-1
Tensile Stress			
Break	110	MPa	ISO 527-2
--	101	MPa	ASTM D638
Tensile Elongation			
Break	5.0	%	ASTM D638
Break	2.0	%	ISO 527-2
Flexural Modulus	7000	MPa	ASTM D790 ISO 178
Flexural Strength	155	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	4.0	kJ/m ²	ISO 179
Notched Izod Impact	33	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	90		ASTM D785

Disclaimer:

- Data shown are typical values obtained by proper testing methods and should not be used for specification purpose. Please use these data for selecting the most appropriate grade suitable for specific usage.

These data may be changed because of improvement in properties.

- Be sure to read the relevant SDS before handling and use, and always follow the Important Precautions.

- Do not use plastics in any of the following orally- or medically-related applications.

- Orally-related applications: any part, device or component which may come into direct oral contact or into direct contact with drinking foods or beverages.

For drinking water application, please consult Asahi Kasei Corporation.

- Medically-related applications: any part, device or component which may be used intracorporeally or which may in dialysis or other processes come into direct or indirect contact with body tissue, body fluids or transfusion fluids.

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	162	°C	ASTM D648
0.45 MPa, Unannealed	165	°C	ISO 75-2/B
1.8 MPa, Unannealed	140	°C	ASTM D648
1.8 MPa, Unannealed	161	°C	ISO 75-2/A
CLTE			
Flow	6.0E-5	cm/cm/°C	ASTM D696
Flow	6.0E-5 to 9.0E-5	cm/cm/°C	ISO 11359-2
Transverse	9.0E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.75 mm)	HB		UL 94

Notes

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

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