

TENAC™ GN705

Asahi Kasei Corporation - Acetal (POM) Homopolymer

General Information

General			
Filler / Reinforcement	• Glass Fiber, 25% Filler by Weight		
Features AKEP website	• Flow, High	• Flow, High	
Uses	• Engineering Parts	• Gears	• Housings
Part Marking Code (ISO11469) (ISO 11469)	• >POM-GF25<		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity			
--	1.56	g/cm ³	ASTM D792
--	1.59	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	10	g/10 min	ISO 1133
Molding Shrinkage			Internal Method
Flow	0.40 to 0.60	%	
Across Flow	1.0 to 1.3	%	
Water Absorption (24 hr, 23°C, 50% RH)	0.20	%	ASTM D570



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Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9000	MPa	ISO 527-1
Tensile Stress			
Break	110	MPa	ISO 527-2
--	106	MPa	ASTM D638
Tensile Elongation			
Break	6.0	%	ASTM D638
Break	2.0	%	ISO 527-2
Flexural Modulus			
--	8200	MPa	ASTM D790
--	8500	MPa	ISO 178
Flexural Strength	173	MPa	ASTM D790
Taber Abrasion Resistance	23.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	7.0	kJ/m ²	ISO 179
Notched Izod Impact	66	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	90		
R-Scale	120		
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed	174	°C	ASTM D648
0.45 MPa, Unannealed	175	°C	ISO 75-2/B
1.8 MPa, Unannealed	170	°C	ASTM D648
1.8 MPa, Unannealed	171	°C	ISO 75-2/A
CLTE			
Flow	4.0E-5	cm/cm/°C	ASTM D696
Flow	4.0E-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

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	190 to 210	°C
Mold Temperature	> 60	°C

Notes

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

