Tenac™-C 5520

Acetal (POM) Copolymer

Asahi Kasei Plastics North America Inc.

General			
Features	• Copolymer	• High Flow	• Medium Viscosity
Uses	• Automotive Applications • Electrical/Electronic Applications	• Household Goods • Industrial Applications	
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.41	g/cm³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR)			
--	15	g/10 min	ASTM D1238
190°C/2.16 kg	15	g/10 min	ISO 1133
Molding Shrinkage			
Flow	1.6 to 2.0	%	ASTM D955 ISO 294-4
Across Flow	1.6 to 2.0	%	ISO 294-4
Water Absorption (24 hr)	0.20	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2850	MPa	ISO 527-2
Tensile Stress			
Yield	66.0	MPa	ISO 527-2
--	61.0	MPa	ASTM D638
Tensile Elongation			
Break	55	%	ASTM D638
Break	50	%	ISO 527-2
Flexural Modulus	2620	MPa	ASTM D790
Flexural Strength	88.0	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles)	14.0	mg	ASTM D1044

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.00	kJ/m²	ISO 179/1eA
Notched Izod Impact	59.0	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	0.00010	cm/cm/°C	ASTM E831

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL	HB		UL 94

Additional Information
The values listed as Mold Shrinkage, were tested in accordance with Asahi Kasei method.

Injection	Nominal Value	Unit
Drying Temperature	82.2	°C
Drying Time	3.0 to 4.0	hr
Rear Temperature	180 to 190	°C
Middle Temperature	190 to 200	°C

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Injection	Nominal Value	Unit
Front Temperature	200 to 210	°C
Nozzle Temperature	200 to 210	°C
Mold Temperature	48.9	°C
Injection Pressure	75.8 to 138	MPa
Holding Pressure	75.8 to 138	MPa
Back Pressure	0.345	MPa
Screw Speed	20 to 100	rpm
Screw Compression Ratio	3.0:1.0 to 4.5:1.0	

Injection Notes
Mold Temperature: > 120°F Injection Speed: 1-5 Seconds Drying Conditions: Usually not necessary Cooling Time: Short Screw Type: General Slightly longer cycle times may be required to mold wall thicknesses over 1/4 inch. Slightly higher injection pressures and mold temperatures may be required to mold wall thicknesses below 0.100 inches.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	190	°C
Cylinder Zone 2 Temp.	200	°C
Cylinder Zone 3 Temp.	210	°C
Melt Temperature	180 to 210	°C

Notes

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