

Technical Data

Product Description				
Schulaform AF9 NAT	Aramid fibre filled POM-Compound with improved abrasion resistance			
Generic Acetal (POM) Copolymer - Aramid Fiber	This data represents typical values that have been calculated from all products classified as: Generic Acetal (POM) Copolymer - Aramid Fiber This information is provided for comparative purposes only.			
General	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber		
Manufacturer / Supplier	• LyondellBasell Industries	• Generic		
Generic Symbol	• Acetal (POM) Copolymer	• Acetal (POM) Copolymer		
Material Status	• Commercial: Active	• Commercial: Active		
Literature ¹	• Technical Datasheet	--		
Search for UL Yellow Card	• LyondellBasell Industries	--		
Availability	• Asia Pacific • Europe • North America	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America		
Filler / Reinforcement	• Aramid Fiber	• Aramid Fiber		
Features	• Abrasion Resistant	--		
Processing Method	• Injection Molding	--		
Physical	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Density / Specific Gravity				
--	--	1.41 to 1.51	g/cm ³	ASTM D792
--	--	1.40 to 1.46	g/cm ³	ISO 1183
--	1.41	--	g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.5	--	cm ³ /10min	ISO 1133
Molding Shrinkage				
Flow	--	1.1 to 2.0	%	ASTM D955
--	--	1.8	%	ISO 294-4
Mechanical	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Tensile Modulus				
--	--	2760 to 4000	MPa	ASTM D638
--	--	2680 to 2910	MPa	ISO 527-1
--	2900	--	MPa	ISO 527-1/1A/1
Tensile Stress				
Yield	55.0	--	MPa	ISO 527-2/1A/50
--	--	46.9 to 68.9	MPa	ASTM D638



Mechanical	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Tensile Elongation				
Yield	--	6.5 to 10	%	ASTM D638
Yield	10	--	%	ISO 527-2/1A/50
Break	12	--	%	ASTM D638
Break	--	4.0 to 14	%	ISO 527-2
Flexural Modulus	--	2590 to 3590	MPa	ASTM D790
Flexural Strength	--	68.3 to 96.5	MPa	ASTM D790
Coefficient of Friction	--	0.13 to 0.23		ASTM D1894
Impact	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1A
-30°C	3.0	--	kJ/m ²	
23°C	5.0	--	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1U
-30°C	40	--	kJ/m ²	
23°C	45	--	kJ/m ²	
Notched Izod Impact				
--	--	58 to 75	J/m	ASTM D256
3.20 mm	61	--	J/m	ASTM D256A
Unnotched Izod Impact	--	370 to 590	J/m	ASTM D4812
Hardness	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Ball Indentation Hardness (H 132/10)	132	--	MPa	ISO 2039-1
Thermal	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	156	--	°C	ISO 75-2/Bf
1.8 MPa, Unannealed	--	101 to 108	°C	ASTM D648
1.8 MPa, Unannealed	--	80.0 to 160	°C	ISO 75-2/A
1.8 MPa, Unannealed	100	--	°C	ISO 75-2/Af
Vicat Softening Temperature				
--	147	--	°C	ISO 306/B50
--	163	--	°C	ISO 306/A50
Electrical	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Surface Resistivity	> 1.0E+15	--	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	--	ohms·m	IEC 62631-3-1
Comparative Tracking Index	600	--	V	IEC 60112



Flammability	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit	Test Method
Burning Rate				
2.00 mm	40	--	mm/min	ISO 3795
2.00 mm	40	--	mm/min	FMVSS 302
Flammability Classification				IEC 60695-11-10, -20
1.5 mm	HB	--		
3.0 mm	HB	--		
Glow Wire Flammability Index				IEC 60695-2-12
1.5 mm	625	--	°C	
3.0 mm	625	--	°C	
Glow Wire Ignition Temperature				IEC 60695-2-13
1.5 mm	650	--	°C	
3.0 mm	650	--	°C	

Injection	Schulaform AF9 NAT	Generic Acetal (POM) Copolymer - Aramid Fiber	Unit
Drying Temperature	100	80 to 121	°C
Drying Time	2.0 to 4.0	2.0 to 4.0	hr
Suggested Max Moisture	0.040 to 0.10	0.15	%
Processing (Melt) Temp	190 to 220	200 to 208	°C
Mold Temperature	60 to 120	93 to 95	°C

Injection Notes	
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Notes

- ¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.
- ² Typical properties: these are not to be construed as specifications.