



Chemlon® A82

Teknor Apex Company - Polyamide 66

General Information

Product Description

A82 is a UL recognised, V-0 rated halogen & phosphorus free flame retarded, unreinforced injection moulding grade of nylon 66.

General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Features	• Flame Retardant	• Halogen Free	• Low (to None) Phosphorus Content
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Dry	Conditioned	Unit	Test Method
Density	1.19	--	g/cm ³	ISO 1183
Molding Shrinkage ²	1.0 to 1.5	--	%	Internal Method
Water Absorption Equilibrium, 73°F, 50% RH	2.4	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	435000	406000	psi	ISO 527-1
Tensile Stress (Break)	10200	7980	psi	ISO 527-2
Flexural Modulus	479000	261000	psi	ISO 178
Flexural Stress ³	12300	5800	psi	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	3.3	17	ft·lb/in ²	ISO 179
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed	> 428	> 428	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed	230	210	°F	ISO 75-2/A
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+16	1.0E+14	ohms·cm	IEC 60093
Electric Strength (0.118 in)	430	330	V/mil	IEC 60243-1
Relative Permittivity	4.00	4.40		IEC 60250
Dissipation Factor (1 MHz)	0.020	0.080		IEC 60250
Comparative Tracking Index	> 600	> 600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (0.022 in)	V-0	--		UL 94
Glow Wire Flammability Index				IEC 60695-2-12
0.04 in	1760	--	°F	
0.06 in	1760	--	°F	
Glow Wire Ignition Temperature				IEC 60695-2-13
0.04 in	1760	--	°F	
0.06 in	1760	--	°F	
Oxygen Index	38	--	%	ISO 4589-2

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Processing Information

Injection	Dry	Unit
Drying Temperature	176	°F
Drying Time	2.0	hr
Rear Temperature	518 to 554	°F
Middle Temperature	518 to 554	°F
Front Temperature	518 to 554	°F
Processing (Melt) Temp	< 572	°F
Mold Temperature	140 to 176	°F
Injection Rate	Fast	
Screw Speed	50 to 200	rpm

Injection Notes

Drying is necessary if material has been exposed to air for longer than 3 hours.

Back Pressure: Low

Injection Pressure: High

Notes

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

² Mould shrinkage is significantly influenced by many factors including wall thickness, gating, moulding shape and processing conditions. The range values given are determined from specimen bar mouldings of 1.5mm to 4mm wall thickness. They are provided as a guide for comparison purposes only and no guarantee should be inferred from their inclusion. (Specimens measured in the dry state, 24 hours after moulding).

³ At conventional deflection