



Chemlon® 66AR

Teknor Apex Company (Chem Polymer) - Polyamide 66

General Information

Product Description

66AR is an unfilled, impact modified grade of nylon 66 with a lower coefficient of friction due to the incorporation of molybdenum disulphide - which also enhances the wear resistance. This material can therefore be considered for applications involving moving parts that require improved impact.

General

Material Status	• Commercial: Active		
Availability	• Europe		
Additive	• Impact Modifier	• Molybdenum Disulfide Lubricant	
Features	• Good Toughness • Impact Modified	• Low Friction • Lubricated	• Wear Resistant
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.12	g/cm ³	ISO 1183
Molding Shrinkage ²	1.5 to 2.2	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	2.1	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	290000	psi	ISO 527-2
Tensile Stress	7980	psi	ISO 527-2
Flexural Modulus	290000	psi	ISO 178
Flexural Stress	8700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	9.5	ft-lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break		ISO 179/1eU
Notched Izod Impact Strength	7.1	ft-lb/in ²	ISO 180/A
Unnotched Izod Impact Strength	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	356	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	167	°F	ISO 75-2/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength (0.118 in)	430	V/mil	IEC 60243-1
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in, Teknor Apex test result)	HB		UL 94
Oxygen Index	21	%	ISO 4589-2

Processing Information

Injection	Nominal Value	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	518 to 554	°F
Mold Temperature	176 to 194	°F

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Injection	Nominal Value	Unit
Injection Rate	Fast	
Back Pressure	Low	
Screw Speed	Moderate	

Injection Notes

No drying is necessary unless the material has been exposed to air for longer than three hours. The appearance of splash marks on the surface of mouldings indicates excessive moisture is present.

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).