Chemlon® AT10

Polyamide 66

Teknor Apex Company (Chem Polymer)

Message:

AT10 is a modified nylon 66 that offers ultra high impact strength coupled with good rigidity, with this impact resistance maintained at sub-zero temperatures.
The excellent impact performance also means that it may be possible to use mouldings prior to any conditioning.

General Information				
Features	Ultra-high impact resistance Rigidity, high Low temperature impact resistance			
Processing Method	Injection molding			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density	1.09	--	g/cm³	ISO 1183
Molding Shrinkage [1]	2.0 - 2.4	--	%	Internal method
Water Absorption (Equilibrium, 23°C, 50% RH)	2.1	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	1800	1500	MPa	ISO 527-2
Tensile Stress (Yield)	48.0	42.0	MPa	ISO 527-2
Flexural Modulus	1800	1100	MPa	ISO 178
Flexural Stress [2]	53.0	30.0	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength	50 kJ/m²	No Break		ISO 179
Charpy Unnotched Impact Strength	No Break	No Break		ISO 179
Notched Izod Impact	80 kJ/m²	No Break		ISO 180
Unnotched Izod Impact Strength	No Break	No Break		ISO 180
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Heat Deflection Temperature				
0.45 MPa, not annealed	150	140	°C	ISO 75-2/B
1.8 MPa, not annealed	70.0	60.0	°C	ISO 75-2/A
Electrical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Surface Resistivity	1.0E+12	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+13	1.0E+13	ohms·cm	IEC 60093
Dielectric Strength (3.00 mm)	10	12	kV/mm	IEC 60243-1

Relative Permittivity (1 MHz)	3.10	--		IEC 60250
Comparative Tracking Index	> 600	> 600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating	HB	--		Internal method
Oxygen Index	21	--	%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80.0 - 100		°C	
Drying Time	2.0		hr	
Rear Temperature	265 - 285		°C	
Middle Temperature	265 - 285		°C	
Front Temperature	265 - 285		°C	
Processing (Melt) Temp	< 300		°C	
Mold Temperature	20.0 - 40.0		°C	
Injection Rate	Moderate			
Screw Speed	50 - 200		rpm	

Injection instructions
Back pressure: LowInjection pressure: MediumNo drying is necessary unless the materials has been exposed to air for longer than three hours.

NOTE	
1.	Mould shrinkage is significantly influenced by many factors including wall thickness, gating, component shape and moulding conditions.The range values stated were 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).
2.	At conventional deflection

Recommended distributors for this material

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