

# Chemlon® HY3

Polyamide 6

Teknor Apex Company (Chem Polymer)

## Message:

HY3 is a general purpose, unfilled, high viscosity injection moulding grade of nylon 6. It contains a nucleating agent to aid faster cycle times.

General Information				
Additive		Nucleating agent		
Features		Nucleated		
		Fast molding cycle		
		Viscosity, High		
Processing Method		Injection molding		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.13	--	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage <sup>1</sup>	1.2 - 2.0	--	%	Internal method
Water Absorption (Equilibrium, 23°C, 50% RH)	3.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3000	1000	MPa	ISO 527-2
Tensile Stress (Yield)	70.0	40.0	MPa	ISO 527-2
Tensile Strain (Yield)	5.0	25	%	ISO 527-2
Flexural Modulus	2800	1000	MPa	ISO 178
Flexural Stress	100	35.0	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	11	--	kJ/m <sup>2</sup>	ISO 179
Charpy Unnotched Impact Strength	No Break	No Break		ISO 179
Notched Izod Impact	3.5	--	kJ/m <sup>2</sup>	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	190	--	°C	ISO 75-2/B
1.8 MPa, not annealed	95.0	--	°C	ISO 75-2/A
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+15	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+17	1.0E+15	ohms · cm	IEC 60093
Dielectric Strength (3.00 mm)	14	10	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	3.50	4.00		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 (1.50 mm)	V-2	--		Internal method
Oxygen Index	25	--	%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0		hr	
Rear Temperature	250 - 270		°C	
Middle Temperature	250 - 270		°C	
Front Temperature	250 - 270		°C	
Processing (Melt) Temp	< 300		°C	
Mold Temperature	60.0 - 80.0		°C	
Injection Rate	Fast			
Screw Speed	50 - 200		rpm	
Injection instructions				
背压:低注射压力:高如果材料在空气中暴露的时间不超过3小时,则无需干燥.				
NOTE				

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).

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