# Chemlon® MD3G

# Polyamide 6

Teknor Apex Company (Chem Polymer)

## Message:

MD3G is a general purpose, unfilled injection moulding grade of nylon 6. MD3G contains a nucleating agent to enable mouldings to be produced with short cycle times.

General Information						
Additive		Nucleating agent				
Features	Nucleated					
		Fast molding cycle				
		General				
Uses		General				
Processing Method	Injection molding					
Physical	Dry	Conditioned	Unit	Test Method		
Density	1.13		g/cm³	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	3100	1000	MPa	ISO 527-2		
Tensile Stress	70.0	40.0	MPa	ISO 527-2		
Tensile Strain (Yield)	5.0	25	%	ISO 527-2		
Flexural Modulus	3000	1000	MPa	ISO 178		
Flexural Stress (3.5% Strain)	90.0	30.0	MPa	ISO 178		
Impact	Dry	Conditioned	Unit	Test Method		
Charpy Notched Impact Strength	10	> 50	kJ/m²	ISO 179/1eA		
Charpy Unnotched Impact Strength	No Break			ISO 179/1eU		
Notched Izod Impact	3.0		kJ/m²	ISO 180/A		
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+13	ohms	IEC 60093		
Volume Resistivity	1.0E+17	1.0E+14	ohms·cm	IEC 60093		
Dielectric Strength (3.00 mm)	14		kV/mm	IEC 60243-1		

Comparative Tracking				
Index	600		V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Glow Wire Flammability				
Index (1.50 mm)	750		°C	IEC 60695-2-12
Oxygen Index	27		%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	2.0		hr	
Rear Temperature	240 - 260		°C	
Middle Temperature	240 - 260		°C	
Front Temperature	240 - 260		°C	
Processing (Melt) Temp	240 - 260		°C	
Mold Temperature	60.0 - 80.0		°C	
Injection Rate	Fast			
Back Pressure	Low			
Screw Speed	Moderate			
Injection instructions				

injection instructions

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.

#### NOTE

1.

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).

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# Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

