

DuPont™ Minlon®

mineral reinforced nylon resin

Minlon® 10B40 NC010

Minlon® 10B40 NC010 is a 40% mineral reinforced polyamide 66 resin for injection molding.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66-MD40	
Part Marking Code	ISO 11469		>PA66-MD40<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	92 (13.3)	58 (8.4)
Strain at Break	ISO 527	%	2.5	8
Tensile Modulus	ISO 527	MPa (kpsi)	9600 (1400)	5400 (785)
Poisson's Ratio			0.41	
Flexural Modulus	ISO 178	MPa (kpsi)	9000 (1300)	4800 (700)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-40°C (-40°F)			2	2
-30°C (-22°F)			2	2
23°C (73°F)			3	3
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-30°C (-22°F)			18	17
23°C (73°F)			25	40

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.
 ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.
 Test temperatures are 23°C unless otherwise stated.

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Thermal				
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	245 (473)	
1.80MPa			205 (401)	
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	263 (505)	
CLTE, Normal -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.53 (0.29)	
23 - 55°C (73 - 130°F)			0.66 (0.36)	
55 - 160°C (130 - 320°F)			1.1 (0.61)	
CLTE, Parallel -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.33 (0.18)	
23 - 55°C (73 - 130°F)			0.36 (0.20)	
55 - 160°C (130 - 320°F)			0.39 (0.22)	
Electrical				
CTI 3.0mm	UL 746A	V	>600	
Flammability				
Flammability Classification 0.71mm	IEC 60695-11-10		HB	
Flammability Classification 0.71mm	UL94		HB	
Oxygen Index	ISO 4589-1/-2	%	23	
High Amperage Arc Ignition Resistance 0.75mm	UL 746A	arcs	>200	
1.5mm			>200	
3.0mm			>200	
Hot Wire Ignition 0.75mm	UL 746A	s	8	
1.5mm			8	
3.0mm			10	

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			DAM	50%RH
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.71mm			105	
1.5mm			120	
RTI, Impact	UL 746B	°C		
0.71mm			65	
1.5mm			105	
3.0mm			115	
RTI, Strength	UL 746B	°C		
0.71mm			65	
1.5mm			115	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1510 (1.51)	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			0.9	
Parallel, 2.0mm			0.5	
Mold Shrinkage		%		
Flow, 1.6mm (0.062in)			0.4	
Flow, 3.2mm (0.126in)			0.4	
Flow, 6.4mm (0.25in)			0.6	
Transverse, 1.6mm (0.062in)			0.9	
Transverse, 3.2mm (0.126in)			0.9	
Transverse, 6.4mm (0.25in)			1.2	
Processing				
Melt Temperature Range		°C (°F)	285-305 (545-580)	
Melt Temperature Optimum		°C (°F)	295 (560)	
Mold Temperature Range		°C (°F)	70-120 (160-250)	
Mold Temperature Optimum		°C (°F)	100 (210)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	<0.20	

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