

Vydyne® 49H NT0745

polyamide 66



Vydyne 49H NT0745 is a general-purpose, impact-modified, high modulus PA66 resin. 49H NT0745 is recognized for all the processing and property advantages inherent to PA66 with the addition of improved impact strength. This resin offers a well balanced combination of engineering properties characterized by high melt point, good surface lubricity, abrasion resistance, resistant to most chemicals including motor oils, transmission fluids, lubricants and fuels.

General

Regional Availability	• North America	• Europe	• Asia Pacific
Additive	• Heat Stabilizer		
Features	• Abrasion Resistance • Gasoline Resistant • Good Toughness • Oil Resistant	• Chemical Resistant • General Purpose • Heat Stabilized • Solvent Resistant	• Fast Molding Cycle • Good Processability • High Impact Resistance
Automotive Specifications	• Tesla TM-1006-30100 (compliance)		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical

	dry	cond.	Unit	Test Standard
Density	1.11	-	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow : 23°C, 2.00 mm	1.9	*	%	
Flow : 23°C, 2.00 mm	2.6	*	%	

Mechanical

	dry	cond.	Unit	Test Standard
Tensile Modulus (23°C)	2700	1400	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	70	48	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	19	86	%	ISO 527-2
Flexural Modulus (23°C)	2600	1200	MPa	ISO 178
Flexural Strength (23°C)	78	30	MPa	ISO 178

Impact

	dry	cond.	Unit	Test Standard
Charpy Notched Impact Strength				ISO 179/1eA
+23°C	9.2	20	kJ/m ²	
-30°C	8.9	12	kJ/m ²	
-40°C	7.6	11	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
+23°C	N	N	kJ/m ²	
-30°C	N	N	kJ/m ²	

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-40°C	N	N	kJ/m²	
Notched Izod Impact Strength				ISO 180/1A
+23°C	8.3	20	kJ/m²	
-30°C	8	12	kJ/m²	
-40°C	7.9	12	kJ/m²	

Thermal	dry	cond.	Unit	Test Standard
Heat Deflection Temperature				ISO 75-2/A
1.80 MPa, Unannealed	67	-	°C	
0.45 MPa, Unannealed	213	-	°C	
Melting Temperature	260	*	°C	ISO 11357-3

Electrical	dry	cond.	Unit	Test Standard
Dielectric Strength (1.00 mm)	31	34	kV/mm	IEC 60243

Injection	Value	Unit
Drying Temperature	80	°C
Drying Time	4	h
Rear Temperature	280 - 310	°C
Middle Temperature	280 - 310	°C
Front Temperature	280 - 310	°C
Nozzle temperature	280 - 310	°C
Processing (Melt) Temperature	285 - 305	°C
Mold Temperature	65 - 95	°C

