

Product Texts

Vydyne R535HT BK653 is a 35% glass-filled, heat-stabilized PA66 PA6 based resin designed for injection molding applications. It was specifically developed to withstand long term exposure to elevated temperatures up to 190°C. R535HT BK653 offers improved flow with an improved black surface finish and maintains the excellent resistance typical of PA66 in chemicals, machine and motor oils, solvents, and gasoline.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.9 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	10900 / 7200	MPa	ISO 527
^[C] Stress at break	205 / 125	MPa	ISO 527
^[C] Strain at break	3.1 / 7.6	%	ISO 527
Flexural modulus, 23°C	10200 / 6300	MPa	ISO 178
Flexural strength	280 / 145	MPa	ISO 178
^[C] Charpy impact strength, +23°C	75 / 85	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	65 / 75	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	12 / 18	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	11 / 12	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	14 / 18	kJ/m ²	ISO 180/1A
Izod notched impact strength	13 / 13	kJ/m ²	ISO 180/1A
Temperature	-30	°C	-

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	260 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	240 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	256 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	19 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	81.4 / *	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	0.8 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
^[C] Density	1420 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	4	h	-
Melt temperature	285 - 305	°C	-
Mold temperature	65 - 95	°C	-
Zone 1	280 - 310	°C	-
Zone 2	280 - 310	°C	-
Zone 3	280 - 310	°C	-
Nozzle temperature	280 - 310	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Black

Additives

Lubricants

Special Characteristics

Heat stabilized or stable to heat

Features

Fatigue Resistance

Chemical Resistance

General Chemical Resistance, Solvent Resistance, Oil Resistance

Applications

Automotive

Regional Availability

North America, Europe, Asia Pacific