Vydyne® R550

PA66-GF50 Ascend

Product Texts

Vydyne R550 is a general purpose, 50% glass-filled, high viscosity PA66 based resin designed for injection molding applications. R550 offers standard flow with a natural 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	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.8 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**16800 / 12600**	MPa	ISO 527
[C] Stress at break	**240 / 180**	MPa	ISO 527
[C] Strain at break	**2.5 / 3.5**	%	ISO 527
Flexural modulus, 23°C	**16000 / 11200**	MPa	ISO 178
Flexural strength	**350 / 270**	MPa	ISO 178
[C] Charpy impact strength, +23°C	**95 / 110**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**91 / 95**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**15 / 21**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**14 / 15**	kJ/m²	ISO 179/1eA
Izod notched impact strength, +23°C	**17 / 21**	kJ/m²	ISO 180/1A
Izod notched impact strength	**16 / 18**	kJ/m²	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	**255 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**260 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**12 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**100 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.5 / ***	mm	-
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**0.8 / ***	mm	-
ASTM Data			
UL 94 Flame rating	**HB**	-	UL 94
Thickness tested	**0.75**	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Volume resistivity	**1E11 / -**	Ohm*m	IEC 62631-3-1
[C] Electric strength	**22 / -**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600 / -**	-	IEC 60112
ASTM Data			
Arc Resistance	**150 / -**	s	ASTM D 495

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**0.5 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**1.2 / ***	%	Sim. to ISO 62
[C] Density	**1580 / -**	kg/m³	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, Release agent

Chemical Resistance
General Chemical Resistance, Solvent Resistance, Hydrolytically Stable, Oil Resistance

Certifications
Food contact, Food approval 10/2011, Food approval FDA 21 CFR

Applications
General Purpose

Regional Availability
North America, Europe, Asia Pacific