

INVISTA HV240A

PA66 Resin

Product Description

INVISTA HV240A is a high viscosity PA66 resin for extrusion, injection molding, and compounding applications. It is non-lubricated and has excellent whiteness.

	Properties (dry)	Value	Units	Method
Viscosity	RV in formic acid, nominal	240	–	ASTM D789
	VN at 0.5% in formic acid, nominal	295	mL/g	ISO 307
	VN at 0.5% in sulfuric acid, nominal	300	mL/g	ISO 307
	RV at 1% in sulfuric acid, nominal	4.6	–	Modified ISO 307
Physical	Density	1.14	g/cm ³	ISO 1183
	Mold shrinkage, 2.0 mm, parallel	1.3	%	ISO 294-4
	Mold shrinkage, 2.0 mm, transverse	1.5	%	ISO 294-4
	Water absorption - 24 hours	1.8	%	ISO 62
	Water absorption - equilibrium @ 50% RH	2.7	%	ISO 62
Mechanical	Tensile strength at yield	84	MPa	ISO 527
	Elongation at yield	4.2	%	ISO 527
	Elongation at break	50	%	ISO 527
	Tensile modulus	3150	MPa	ISO 527
	Flexural modulus	2900	MPa	ISO 178
	Flexural strength	100	MPa	ISO 178
	Notched Charpy at 23°C	6.2	kJ/m ²	ISO 179
	Notched Charpy at -30°C	6.4	kJ/m ²	ISO 179
	Unnotched Charpy at 23°C	NB	kJ/m ²	ISO 179
	Unnotched Charpy at -30°C	NB	kJ/m ²	ISO 179
	Notched Izod at 23°C	5.5	kJ/m ²	ISO 180
Thermal	Melting temperature, 10°C/min	262	°C	ISO 11357
	HDT at 0.45 MPa	206	°C	ISO 75
	HDT at 1.80 MPa	72	°C	ISO 75

	Properties (dry)	Value	Units	Method
Electrical	Volume Resistivity, 2.00 mm	10 ¹⁰	ohm-cm	UL 746A
	Dielectric Strength, 1.0 mm	10.8	kV/mm	UL 746A
	Comparative Tracking Index, 3.0 mm	≥600	volts	UL 746A
Flammability	Flame Rating at 0.40 mm	HB	–	UL 94
	Flame Rating at 0.71 mm	HB	–	UL 94
	Flame Rating at 1.5 mm	V-2	–	UL 94
	Flame Rating at 3.0 mm	V-2	–	UL 94

General Information

Material Status

Commercial: Active

Availability

- North America
- South America
- Europe
- Asia

Features

- High viscosity
- Excellent whiteness and processability
- Fast and consistent crystallization

RoHS

No intentional additives or ingredients used in HV240A are among those in European directive 2011/65/EC (RoHS), as amended.

Process Guidelines for Molding

Drying temperature	90°C
Drying time*	6 - 8 hrs
Barrel temperatures	
Rear	250 - 280°C
Middle	275 - 290°C
Front	275 - 290°C
Nozzle	275 - 295°C
Processing temperature (melt)	280 - 290°C
Mold temperature	50 - 90°C
Back pressure**	5 - 30 bar
Vent depth	0.007 - 0.04 mm
Cushion (range)	4 - 6 mm
Suggested moisture (max)	0.02 wt%
Suggested moisture (min)	0.005 wt%
Screw Speed	50 - 120 rpm
* Initial moisture below 0.08 wt%. Use dehumidified air.	
** Melt pressure	

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