

INVISTA HV240AHS�

PA66 Resin

Product Description

INVISTA HV240AHS� is a high viscosity PA66 resin for extrusion and injection molding applications. It is heat stabilized and lubricated.

	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	1.7	%	ISO 294-4
	Mold shrinkage, 2.0 mm, transverse	1.8	%	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	89	MPa	ISO 527
	Elongation at yield	4.4	%	ISO 527
	Elongation at break	25	%	ISO 527
	Tensile modulus	2950	MPa	ISO 527
	Flexural modulus	2900	MPa	ISO 178
	Flexural strength	97	MPa	ISO 178
	Notched Charpy at 23°C	5.6	kJ/m ²	ISO 179
	Notched Charpy at -30°C	6.1	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
Thermal	Notched Izod at 23°C	4.4	kJ/m ²	ISO 180
	Melting temperature, 10°C/min	262	°C	ISO 11357
	HDT at 0.45 MPa	176	°C	ISO 75
	HDT at 1.80 MPa	63	°C	ISO 75

	Properties (dry)	Value	Units	Method
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	HB	–	UL 94
	Flame Rating at 3.0 mm	HB	–	UL 94

General Information

Material Status

Commercial: Active

Availability

- North America
- South America
- Europe
- Asia

Features

- High viscosity
- Heat stabilized
- Lubricated for injection molding
- Fast and consistent crystallization

RoHS

No intentional additives or ingredients used in HV240AHSL 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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