

INVISTA

HV125AHSL PA66 Resin

Product Description

INVISTA HV125AHSL 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	125	–	ASTM D789
	VN at 0.5% in formic acid, nominal	225	mL/g	ISO 307
	VN at 0.5% in sulfuric acid, nominal	235	mL/g	ISO 307
	RV at 1% in sulfuric acid, nominal	3.7	–	ASTM D789
Physical	Density	1.14	g/cm ³	ISO 1183
	Mold shrinkage, 2.0 mm, parallel	2.0	%	ISO 294-4
	Mold shrinkage, 2.0 mm, transverse	1.8	%	ISO 294-4
	Water absorption - 24 hours	1.9	%	ISO 62
	Water absorption - equilibrium @ 50% RH	2.7	%	ISO 62
Mechanical	Tensile strength at yield	90	MPa	ISO 527
	Elongation at yield	4.4	%	ISO 527
	Elongation at break	25	%	ISO 527
	Tensile modulus	3000	MPa	ISO 527
	Flexural modulus	2850	MPa	ISO 178
	Flexural strength	96	MPa	ISO 178
	Notched Charpy at 23°C	5.4	kJ/m ²	ISO 179
	Notched Charpy at -30°C	6.6	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	4.3	kJ/m ²	ISO 180
Thermal	Melting temperature, 10°C/min	262	°C	ISO 11357
	HDT at 0.45 MPa	181	°C	ISO 75
	HDT at 1.80 MPa	58	°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 HV125AHSL are among those in European directive 2011/65/EC (RoHS), as amended.

Process Guidelines for Molding

Drying temperature	90°C
Drying time*	3 - 4 hrs
Barrel temperatures	
Rear	250 - 280°C
Middle	275 - 290°C
Front	275 - 290°C
Nozzle	275 - 295°C
Processing temperature (melt)	280 - 295°C
Mold temperature	50 - 90°C
Back pressure**	2 - 10 bar
Vent depth	0.007 - 0.04 mm
Cushion (range)	4 - 6 mm
Suggested moisture (max)	0.08 wt%
Suggested moisture (min)	0.02 wt%
Screw Speed	50 - 150 rpm

* Initial moisture below 0.10 wt%. Use dehumidified air.

** Melt pressure

Product Data Sheet Disclaimer This Product Data Sheet relates only to the identified product and any identified uses. It is based on information available as of August 2022. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. THIS PRODUCT DATA SHEET DOES NOT CONTAIN A COMPLETE STATEMENT OF, AND DOES NOT CONSTITUTE A REPRESENTATION, WARRANTY OR GUARANTY WITH REGARD TO, A PRODUCT'S CHARACTERISTICS, USES, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE SUITABILITY, SAFETY, EFFICACY, HAZARDS OR HEALTH EFFECTS OF THE PRODUCT, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCT, EXCEPT TO THE EXTENT REQUIRED BY THE RELEVANT LAW AND REGULATIONS. Nothing contained in this Product Data Sheet shall be construed to modify any of the terms under which the product was sold by INVISTA. INVISTA and design are trademarks of INVISTA. ©2022 INVISTA.