

INVISTA HV360A

PA66 Resin

Product Description

INVISTA HV360A is a very high viscosity PA66 resin for extrusion and injection molding applications. It is non-lubricated and has excellent whiteness.

| | Properties (dry) | Value | Units | Method |
|---------------------------|---|-------------------|-------------------|-----------|
| VISCOSITY | VN at 0.5% in formic acid, nominal | 340 | mL/g | ISO 307 |
| | VN at 0.5% in sulfuric acid, nominal | 340 | mL/g | ISO 307 |
| | RV at 1% in sulfuric acid, nominal | 5.2 | — | — |
| | RV in formic acid, nominal | 360 | — | ASTM D789 |
| PHYSICAL | Density | 1.14 | g/cm ³ | ISO 1183 |
| | Mold Shrinkage, 2.0 mm, Parallel | 1.4 | % | ISO 294-4 |
| | Mold Shrinkage, 2.0 mm, Transverse | 1.3 | % | ISO 294-4 |
| | Water Absorption - 24 hours | 1.4 | % | ISO 62 |
| | Water Absorption - Equilibrium @ 50% RH | 2.7 | % | ISO 62 |
| MECHANICAL | Tensile Strength at Yield | 85 | MPa | ISO 527 |
| | Elongation at Yield | 4.3 | % | ISO 527 |
| | Elongation at Break | 40 | % | ISO 527 |
| | Tensile Modulus | 3100 | MPa | ISO 527 |
| | Flexural Modulus | 2900 | MPa | ISO 178 |
| | Flexural Strength | 97 | MPa | ISO 178 |
| | Notched Charpy at 23°C | 6.2 | 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 | 4.7 | kJ/m ² | ISO 180 | |

| | Properties (dry) | Value | Units | Method |
|--------------|--|-------|-------|-----------|
| THERMAL | 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 |
| FLAMMABILITY | Flammability Classification at 0.40 mm | HB | — | UL 94 |
| | Flammability Classification at 0.71 mm | HB | — | UL 94 |
| | Flammability Classification at 1.5 mm | HB | — | UL 94 |
| | Flammability Classification at 3.0 mm | HB | — | UL 94 |

General Information

Material Status

Commercial: Active

Availability

- North America
- South America
- Europe
- Asia

Features

- Very high viscosity
- Excellent whiteness and processability
- Fast and consistent crystallization

RoHS

No intentional additives or ingredients used in HV360A are among those in the European directive 2011/65/EC (RoHs), as amended.

Process Guidelines for Molding

| | |
|-------------------------------|-----------------|
| Drying temperature | 90 °C |
| Drying time* | 4 - 6 hours |
| 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) | 0.03 wt% |
| Suggested moisture (min) | 0.005 wt% |
| Screw speed | 50 - 150 rpm |

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

** Melt pressure

Product Data Sheet Disclaimer

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