

# RAPID CYCLING. RELIABLE MOLDING.

INVISTA's unreinforced direct-to-mold PA66 resins feature internal and external lubrication for consistent productivity, while delivering the toughness, chemical resistance and long-term heat resistance for which PA66 is known. With heat-stabilized and nucleated grades available, these resins are an ideal solution for a wide range of injection molding applications in transportation, electrical/electronic, industrial and consumer markets.

## Benefits

- High flow
- V-2 flammability rating
- Heat resistance
- Chemical resistance
- High strength, excellent toughness
- Rapid crystallization allowing fast cycle times

## Applications

### ELECTRICAL/ ELECTRONICS

- Terminal blocks
- Switches
- Connectors
- Thin-walled parts

### SUITABLE GRADES

- PA66 U4620FL
- PA66 U4630HSL
- PA66 U4820L

### INDUSTRIAL

- Cable ties
- Fasteners

### SUITABLE GRADES

- PA66 U4620FL
- PA66 U4630HSL
- PA66 U4820L

### TRANSPORTATION

- Canisters
- Wire management
- Fuse boxes

### SUITABLE GRADES

- PA66 U4620FL
- PA66 U4630HSL
- PA66 U4820L

### CONSUMER

- Battery seals
- Kitchenware
- Lighters
- Aerosol valves

### SUITABLE GRADES

- PA66 U4620FL
- PA66 U4630NL
- PA66 U4820L

## INVISTA Nylon Polymer

INVISTA is a global leader in the production of nylon intermediates and polymer resins. For more than 45 years, we've made nylon polymers that serve as the foundation for many different products across multiple markets including automotive, industrial, apparel and consumer electronics industries, to name just a few.

We are committed to helping our customers overcome their challenges and meet their objectives by providing the right resins and ingredients for their needs. Looking toward the future, we are continuing to strengthen our capabilities by investing in new ADN facilities.

## Summary of Properties and UL Certifications

INVISTA PA66 Direct-to-Mold Resins							
Product Attribute			Lubricated	Heat-Stabilized	High Flow, Fast Cycle	Ultra-Fast Cycle	
Property	Method	Unit	U4820L	U4630HSL	U4260L	U4840NL	
Physical	Density	ISO 1183	g/cm <sup>3</sup>	1.14	1.14	1.14	1.14
	Water Absorption - 24 Hours	ISO 62	%	1.8	1.7	1.8	1.4
	Melting Temperature	ISO 11359	°C	261	261	260	263
	Mold Shrinkage, 2.0 mm, Parallel	ISO 294-4	%	1.5	1.8	1.5	1.4
	Mold Shrinkage, 2.0 mm, Parallel	ISO 294-4	%	1.8	1.7	1.5	1.5
Mechanical (DAM)	Tensile Strength at Yield	ISO 527	MPa	82	84	85	93
	Elongation at Yield	ISO 527	%	4.2	4.2	4.2	4.0
	Elongation at Break	ISO 527	%	35	30	30	15
	Tensile Modulus	ISO 527	MPa	3200	3100	3150	3700
	Notched Charpy at 23°C	ISO 179	kJ/m <sup>2</sup>	5.5	5.0	5.3	3.7
	Notched Charpy at -30°C	ISO 179	kJ/m <sup>2</sup>	4.3	4.2	4.9	3.1
	Unnotched Charpy at 23°C	ISO 179	kJ/m <sup>2</sup>	Non-Break	Non-Break	Non-Break	Non-Break
	Unnotched Charpy at -30°C	ISO 179	kJ/m <sup>2</sup>	Non-Break	Non-Break	Non-Break	Non-Break
	Notched Izod at 23°C	ISO 180	kJ/m <sup>2</sup>	5.4	5.0	4.2	4.7
Certification	UL - Flammability	UL 94	–	V-2 (0.40 mm)	V-2 (0.40 mm)	V-2 (0.40 mm)	V-2 (0.40 mm)
	UL - RTI Elec / Imp / Str	UL 764	°C	30 / 65 / 75 (0.40 mm)	140 / 105 / 120 (0.40 mm)	130 / 65 / 75 (0.40mm)	130 / 65 / 75 (0.40 mm)
	UL - CTI	IEC 60112	Volts	600	600	600	600

### Request a Sample Today

INVISTA Direct-to-Mold PA66 resins are available for sampling and qualification.

Contact us today at [nylonpolymer.invista.com](https://nylonpolymer.invista.com) to learn how INVISTA can support your material needs.

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