

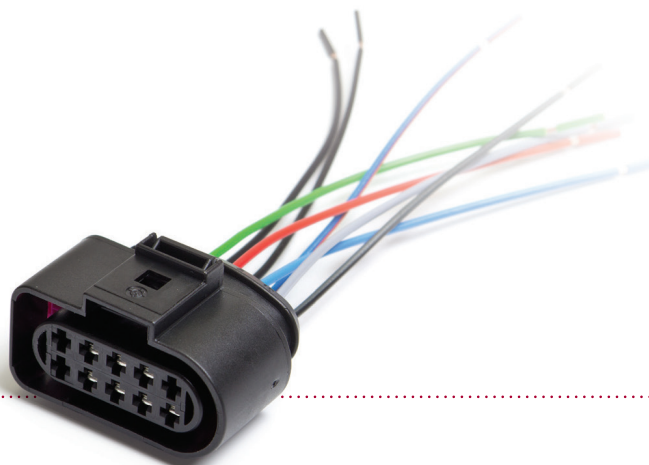
RAPID CYCLING. RELIABLE MOLDING.

Direct-to-mold PA66 Resins

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 Include:

- High flow
- V2 flammability rating
- Heat resistant
- 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 U4630HSL
- PA66 U4664FL
- PA66 U4820L

INDUSTRIAL

- Cable ties
- Fasteners

Suitable Grades

- PA66 U4630HSL
- PA66 U4664FL
- PA66 U4820L

TRANSPORTATION

- Canisters
- Wire management
- Fuse boxes

Suitable Grades

- PA66 U4630HSL
- PA66 U4820L

CONSUMER

- Battery seals
- Kitchenware
- Lighters
- Aerosol valves

Suitable Grades

- PA66 U4840NL
- PA66 U4664FL
- PA66 U4820L

INVISTA NYLON POLYMER

The unreinforced direct-to-mold line of resins was developed by INVISTA, the world's largest integrated producer of PA66 polymer and intermediates*. INVISTA provides flexible solutions in all aspects, from technical support during product validation to new application development. The PA66 resin portfolio provides quality products for a broad range of sectors including automotive, electrical/electronics, industrial and consumer.

*According to 2016 PCI Nylon Yellowbook.

INVISTA Unreinforced PA66 resins are available for sampling and qualification. Contact us today at NISP@INVISTA.com or nylonpolymer.invista.com to learn how INVISTA can support your material needs.

Summary of physical and mechanical properties

Product Category				PA66 Direct-to-Mold Resins			
				Lubricated	Heat Stabilized	Fast Cycle	Ultra-Fast Cycle
Typical Application				Cable Tie, Connector	Canister, Fastener	Cable Tie	Aerosol Valve
Product Portfolio				U4820L	U4630HSL	U4664FL	U4840NL
Physical	Property	Method	Unit				
	Density	ISO 1183	g/cm ³	1.14	1.14	1.14	1.14
	Melting Temperature	ISO 11359	°C	261	261	263	263
Water Absorption - 24 Hours	ISO 62	%	1.4	1.7	1.8	1.4	
Mechanical (DAM)	Tensile Strength at Yield	ISO 527	MPa	82	84	83	93
	Elongation at Yield	ISO 527	%	4.2	4.2	4.0	4.0
	Elongation at Break	ISO 527	%	50	25	30	15
	Tensile Modulus	ISO 527	MPa	3200	3100	3200	3700
	Notched Charpy at 23°C	ISO 179	kJ/m ²	5.5	5.0	4.6	3.7
	Notched Charpy at -30°C	ISO 179	kJ/m ²	4.3	4.2	4.5	3.1
	Unnotched Charpy at 23°C	ISO 179	kJ/m ²	NB	NB	NB	NB
	Unnotched Charpy at -30°C	ISO 179	kJ/m ²	310	NB	150	NB
Notched Izod at 23°C	ISO 180	kJ/m ²	5.4	5.0	4.7	4.7	
Certification	UL - Flammability	UL 94	/	V2 (0.40mm)	V2 (0.40mm)	V2 (0.40mm)	V2 (0.40mm)
	UL - RTI Elec / Imp / Str	UL 764	°C	130 / 65 / 75 (0.40mm)	140 / 105 / 120 (0.40mm)	130 / 65 / 75 (0.40mm)	130 / 65 / 75 (0.40mm)
	UL - CTI	IEC 60112	Volts	600	600	600	600

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