Compounding Feedstock PA66 Resins

CONSISTENT QUALITY. GLOBAL SUPPLY.

INVISTA's compounding feedstock PA66 resins feature consistent quality while delivering the toughness, chemical resistance and long-term heat resistance for which PA66 is known. With local supply of most products in North America, Europe and Asia, these resins are an ideal solution for compounders in all regions. The portfolio includes quality products for a broad range of markets including automotive, electrical/electronics, industrial and consumer.

Low Viscosity Resins

ADVANTAGES

- High flow
- Allows high loading of fillers
- Beneficial for shear-sensitive additives

INVISTA PRODUCTS

- HyperFlow™ U2501 PA66
- U3501 PA66
- U3600 PA66
- U3602 PA66
- U4201 PA66

Medium Viscosity Resins

ADVANTAGES

- General purpose
- Good flow
- Balanced molecular weight

INVISTA PRODUCTS

- U4500 PA66
- U4800 PA66
- U4801 PA66
- U4803 PA66
- U5000 PA66
- U5101 PA66

High Viscosity Resins

ADVANTAGES

- High molecular weight
- High melt strength
- Durability

INVISTA PRODUCTS

- HV80A PA66
- HV125A PA66
- HV240A PA66
- HV360A PA66

High Amine Ends Resin

ADVANTAGES

- Very high amine end groups
- Improved hydrolysis resistance

INVISTA PRODUCTS

- U4591 PA66

Summary of Properties and UL Certifications

	Property	Unit	Method	HyperFlow U2501	U3501	U3600	U3602	U4201	U4500	U4591	U4800	U4801	U4803	U5000	U5101	HV80A	HV125A	HV240A	HV360A
	INVISTA PA66 Feedstock Products																		
PHYSICAL	RV in formic acid, nominal	–	ASTM D789	25	35	36	36	42	45	45	48	48	48	50	51	80	125	240	360
PHYSICAL	RV at 1% in sulfuric acid, nominal	–	–	2.1	2.4	2.4	2.4	2.55	2.65	2.65	2.7	2.7	2.7	2.75	2.8	3.2	3.7	4.6	5.2
PHYSICAL	VN in sulfuric acid, nominal	mL/g	ISO 307	100	126	129	128	138	145	145	150	150	150	153	155	190	235	300	340
PHYSICAL	Amine end groups, nominal	mequiv/kg	–	55	56	56	44	50	53	88	50	50	50	48	50	–	–	–	–
PHYSICAL	Moisture maximum, as packaged	wt%	ISO 15512	0.50	0.50	0.35	0.25	0.50	0.25	0.45	0.20	0.50	0.50	0.20	0.40	0.08	0.06	0.06	0.05
PHYSICAL	Density	g/cm^3	ISO 1183	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
MECHANICAL	Tensile strength at yield	MPa	ISO 527	82	82	82	82	82	83	81	82	82	84	84	80	84	86	84	85
MECHANICAL	Elongation at yield	%	ISO 527	4.5	3.9	4.4	4.4	4.4	4.1	4.3	4.2	4.4	4.5	4.4	3.8	4.4	4.4	4.2	4.3
MECHANICAL	Elongation at break	%	ISO 527	9	45	30	35	33	40	35	40	50	50	35	30	45	40	50	40
MECHANICAL	Tensile modulus	MPa	ISO 527	3000	3000	2950	2950	2800	3000	2900	3100	2800	2900	3100	2850	2900	3100	3150	3100
MECHANICAL	Notched Charpy at 23°C	kJ/m^2	ISO 179	4.4	4.7	5.0	4.2	5.0	5.4	5.5	5.4	4.6	4.7	5.1	4.7	6.6	6.1	6.2	6.2
MECHANICAL	Notched Charpy at -30°C	kJ/m^2	ISO 179	4.3	4.5	5.3	4.7	4.3	4.2	4.9	4.2	3.9	4.6	5.3	4.1	5.7	6.4	6.4	6.6
MECHANICAL	Unnotched Charpy at 23°C	kJ/m^2	ISO 179	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB
MECHANICAL	Unnotched Charpy at -30°C	kJ/m^2	ISO 179	70	NB	NB	NB	260	410	NB	NB	NB	NB	NB	NB	100	NB	NB	NB
MECHANICAL	Notched Izod at 23°C	kJ/m^2	ISO 180	3.7	4.8	4.2	4.0	3.8	4.9	4.4	4.7	5.0	5.0	4.0	4.8	5.0	4.9	5.5	4.7
THERMAL	Melting temperature	°C	ISO 11357	265	264	263	262	258	261	262	259	261	263	262	262	261	263	262	262
THERMAL	HDT at 0.45 MPa	°C	ISO 75	207	199	197	196	191	198	197	200	192	205	199	207	187	202	206	191
THERMAL	HDT at 1.80 MPa	°C	ISO 75	73	69	69	69	62	68	67	72	71	73	68	65	64	68	72	65

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.

Request a Sample Today

INVISTA PA66 feedstock resins are available for sampling and qualification.

Contact us today at **nylonpolymer.invista.com/contact** to learn how INVISTA can support your material needs.

INVISTA™

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