

Terblend® N NM-12
(ABS+PA6)

INEOS Styrolution

Terblend® N NM-12 is an ABS/PA blend combining high impact strength and rigidity with a excellent processability and surface appearance.

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	34 / *	cm ³ /10min	ISO 1133
Temperature	240 / *	°C	-
Load	10 / *	kg	-
Molding shrinkage, parallel	0.7 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2200 / 1600	MPa	ISO 527
Yield stress	50 / 45	MPa	ISO 527
Yield strain	3.2 / 5	%	ISO 527
Nominal strain at break	20 / >50	%	ISO 527
Impact Strength (Charpy), +23°C	no break / -	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23°C	17 / -	kJ/m ²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	9 / -	kJ/m ²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	66 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	88 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	105 / *	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	90 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.6 / *	mm	-
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.2 / *	mm	-

Electrical Properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.3 / -	-	IEC 62631-2-1
Relative permittivity, 1MHz	2.9 / 3.3	-	IEC 62631-2-1
Dissipation Factor, 1MHz	150 / 550	E-4	IEC 62631-2-1
Volume Resistivity	>1E13 / 1E11	Ohm*m	IEC 62631-3-1
Surface Resistivity	* / 1E14	Ohm	IEC 62631-3-2
Comparative tracking index	600 / 600	-	IEC 60112

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1070 / -	kg/m ³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	928	kg/m ³	-
Thermal Conductivity of Melt	0.156	W/(m K)	-
Spec. heat capacity of melt	2410	J/(kg K)	-
Ejection temperature	90	°C	-

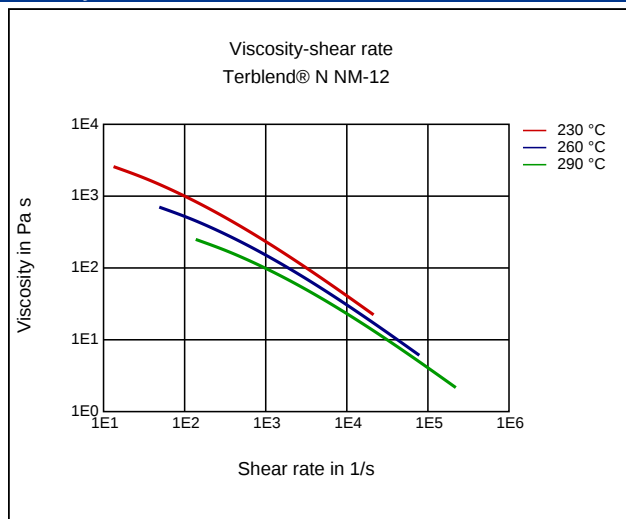
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	240 - 270	°C	-
Mold temperature	40 - 80	°C	-

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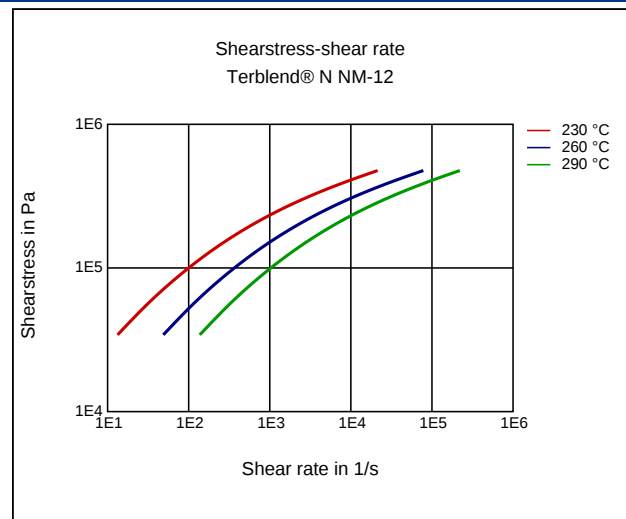
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Diagrams

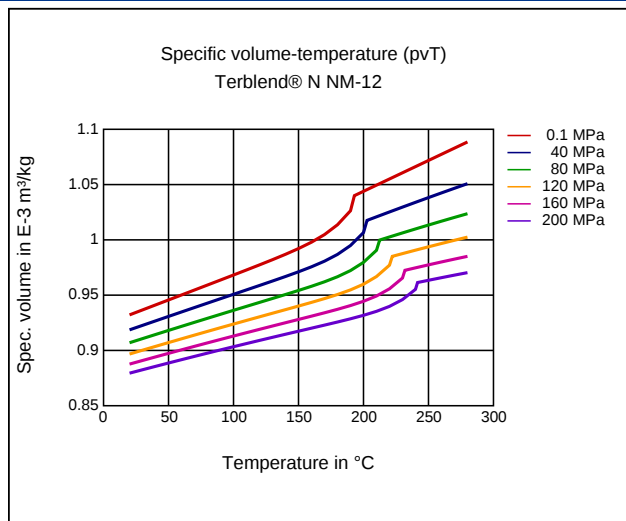
Viscosity-shear rate



Shearstress-shear rate



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Anti-static

Injection Molding

PREPROCESSING

Pre/Post-processing, Pre-drying, Temperature: 80 °C

Pre/Post-processing, Pre-drying, Time: 2 - 4 h

PROCESSING

injection molding, Melt temperature, range: 240 - 270 °C

injection molding, Melt temperature, recommended: 260 °C

injection molding, Mold temperature, range: 40 - 80 °C

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injection molding, Mold temperature, recommended: 60 °C

Chemical Media Resistance

Acids

- ✓ Acetic Acid (5% by mass) (23 °C)
- ✓ Citric Acid solution (10% by mass) (23 °C)
- ✓ Lactic Acid (10% by mass) (23 °C)
- ✓ Hydrochloric Acid (36% by mass) (23 °C)
- ✓ Sulfuric Acid (5% by mass) (23 °C)

Bases

- ✓ Sodium Hydroxide solution (35% by mass) (23 °C)
- ✓ Sodium Hydroxide solution (1% by mass) (23 °C)

Alcohols

- ✓ Methanol (23 °C)
- ✓ Ethanol (23 °C)

Hydrocarbons

- ✓ iso-Octane (23 °C)

Standard Fuels

- ✓ Diesel fuel (pref. ISO 1817 Liquid F) (23 °C)

Salt solutions

- ✓ Sodium Chloride solution (10% by mass) (23 °C)
- ✓ Sodium Hypochlorite solution (10% by mass) (23 °C)
- ✓ Sodium Carbonate solution (20% by mass) (23 °C)
- ✓ Sodium Carbonate solution (2% by mass) (23 °C)
- ✓ Zinc Chloride solution (50% by mass) (23 °C)

Other

- ✓ 1% nonylphenoxy-polyethyleneoxy ethanol in water (23 °C)
 - ✓ Water (23 °C)
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