

Terblend® N NM-11
 (ABS+PA6)

INEOS Styrolution

Terblend® N,NM-11 is a blend of ABS with PA 6, provides very good mechanical properties, a high melt flow and very good chemical resistance provided by the polyamide component. Parts from Terblend® NG-02EF have acoustic dampening properties and show in unpainted, textured surfaces a nice matt appearance. Terblend® N NM-11 provides balanced properties and keeps its high impact properties also in combination with a very high concentration of colorants. Its rather low melt flow makes it also well suitable for extrusion applications.

Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	30 / *	cm³/10min	ISO 1133
Temperature	240 / *	°C	-
Load	10 / *	kg	-

Mechanical Properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2000 / 1400	MPa	ISO 527
Yield stress	43 / 34	MPa	ISO 527
Yield strain	3.5 / 5.5	%	ISO 527
Nominal strain at break	>50 / >50	%	ISO 527
Notched Impact Strength (Charpy), +23°C	65 / -	kJ/m²	ISO 179/1eA
Notched Impact Strength (Charpy), -30°C	15 / -	kJ/m²	ISO 179/1eA

Thermal Properties	dry / cond	Unit	Test Standard
ISO Data			
Temp. of deflection under load (1.80 MPa)	85 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	97 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	102 / *	°C	ISO 306
Coeff. of Linear Therm. Expansion, parallel	100 / *	E-6/K	ISO 11359-1/-2
Burning Behav. at 1.5 mm Nom. Thickn.	HB / *	class	UL 94
Thickness tested	1.5 / *	mm	-
UL recognition	yes / *	-	-
Burning Behav. at thickness h	HB / *	class	UL 94
Thickness tested	3.0 / *	mm	-
UL recognition	yes / *	-	-

Other Properties	dry / cond	Unit	Test Standard
ISO Data			
Humidity absorption	1.2 / *	%	Sim. to ISO 62
Density	1070 / -	kg/m³	ISO 1183

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	928	kg/m³	-
Thermal Conductivity of Melt	0.15	W/(m K)	-
Spec. heat capacity of melt	2410	J/(kg K)	-
Ejection temperature	90	°C	-

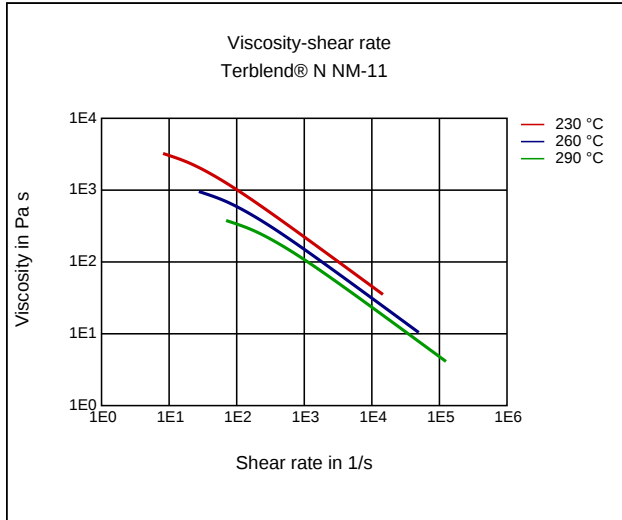
Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	240 - 270	°C	-
Mold temperature	40 - 80	°C	-

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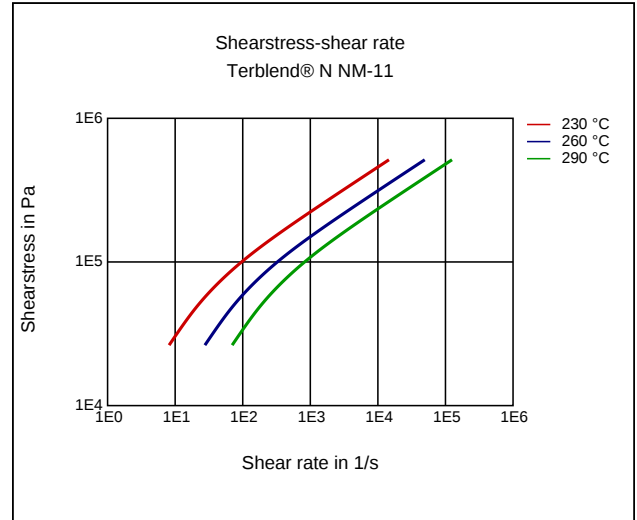
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Diagrams

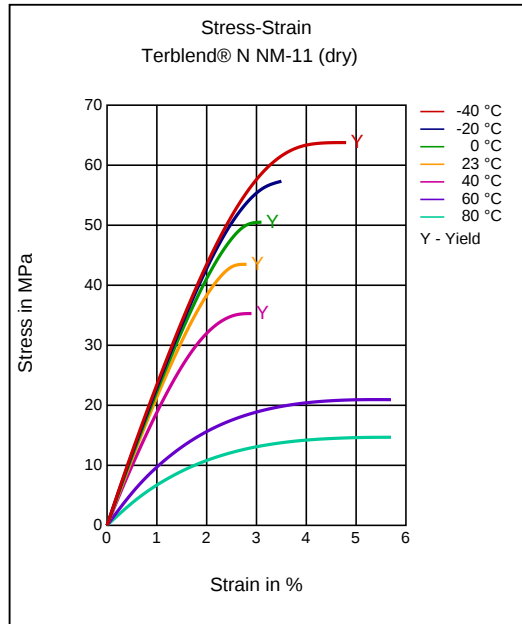
Viscosity-shear rate



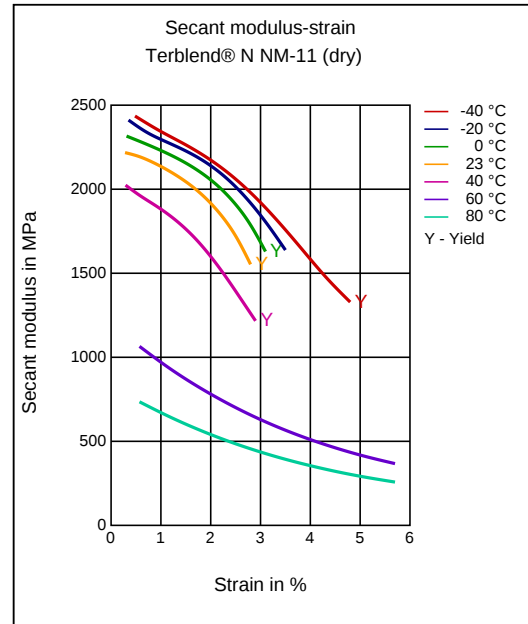
Shearstress-shear rate



Stress-strain



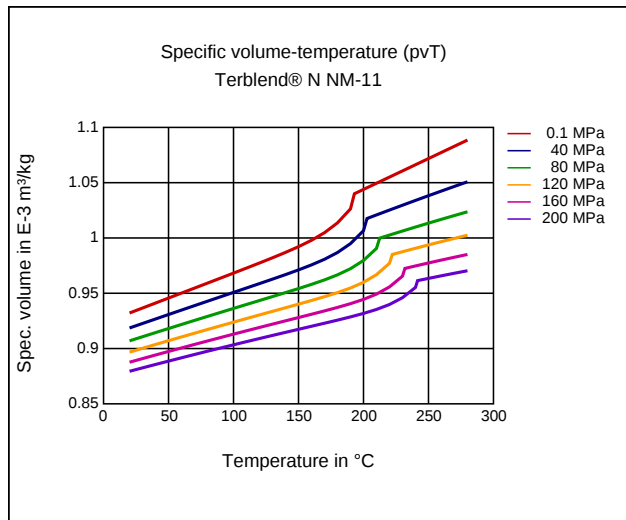
Secant modulus-strain



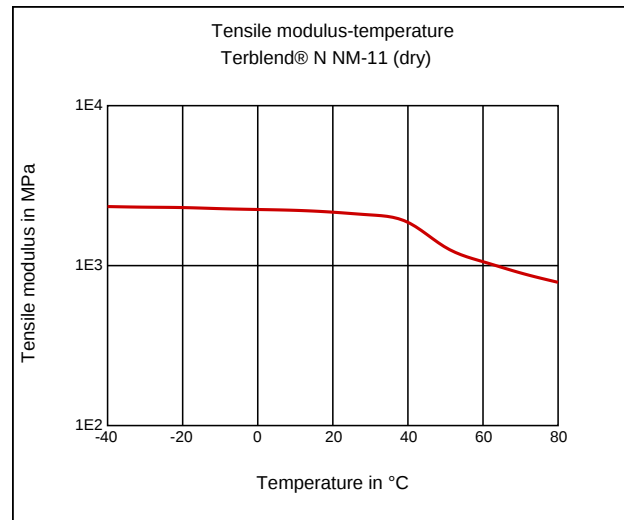
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Specific volume-temperature (pvT)



Tensile Modulus-Temperature



Characteristics

Processing

Injection Molding

Delivery form

Pellets

Injection Molding

PREPROCESSING

Pre-drying, Temperature: 80 - 90 °C

Pre-drying, Time: 4 - 8h

PROCESSING

Melt temperature, range: 240 - 270 °C

Mold temperature, range: 40 - 80 °C

Special Characteristics

Anti-static

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

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- ✓ 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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