

## DSM Stanyl® TW241F12 Nylon 46-60% Glass Reinforced (European and Asian Grade) (Dry)

Category : Polymer , Thermoplastic , Nylon , Nylon 46 , Nylon 46, Glass Fiber Reinforced

### Material Notes:

Stanlyl is a high performance polyamide providing good performance and value across a broad range of automotive and electronic applications. Stanlyl offers: Highest mechanical properties at high temperatures Excellent resistance to wear and low friction Outstanding flow for easy processing and exceptional design freedom Stanlyl High Flow grades that match the best flowing LCPs while maintaining a high level of mechanical properties Key Applications: Automotive: Powertrain components, Charge-air coolers, EPS and ETC gears, Motor Sensors, Auto connectors, Chain tensioners E&E: Connectors, Microswitches, Bobbins, Memory modules, Motor components, Industrial, Specialty films and fibers, Consumer appliances Information provided by DSM.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DSM-Stanyl-TW241F12-Nylon-46-60-Glass-Reinforced-European-and-Asian-Grade-Dry.php](http://www.lookpolymers.com/polymer_DSM-Stanyl-TW241F12-Nylon-46-60-Glass-Reinforced-European-and-Asian-Grade-Dry.php)

Physical Properties	Metric	English	Comments
Density	1.76 g/cc	0.0636 lb/in <sup>3</sup>	ISO 1183
Viscosity Test	75 cm <sup>3</sup> /g	75 cm <sup>3</sup> /g	Viscosity Number
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0070 cm/cm	0.0070 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	255 MPa	37000 psi	ISO 527-1/-2
Elongation at Break	2.0 %	2.0 %	ISO 527-1/-2
Tensile Modulus	20.0 GPa	2900 ksi	ISO 527-1/-2
Charpy Impact Unnotched	8.00 J/cm <sup>2</sup>	38.1 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact Unnotched	9.00 J/cm <sup>2</sup>	42.8 ft-lb/in <sup>2</sup>	ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	1.90 J/cm <sup>2</sup>	9.04 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	1.90 J/cm <sup>2</sup>	9.04 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
	20.0 μm/m-°C	11.1 μin/in-°F	

CTE, linear, Parallel to Flow Thermal Properties	Metric @ Temperature 20.0 °C	English @ Temperature 68.0 °F	ISO 11359-1/-2 Comments
CTE, linear, Transverse to Flow	80.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ @Temperature 20.0 °C	44.4 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ @Temperature 68.0 °F	ISO 11359-1/-2
Melting Point	295 °C	563 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	290 °C	554 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	290 °C	554 °F	ISO 75-1/-2
Vicat Softening Point	290 °C	554 °F	50°C/h 50N; ISO 306
Glass Transition Temp, Tg	75.0 °C	167 °F	Glass Transition Temperature (10°C/min); ISO 11357-1/-2
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	IEC 60695-11-10

Descriptive Properties	Value	Comments
Injection molding	Yes	
With Fillers	Yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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