

DSM Stanyl® TW271B6 (PA46+PTFE)-CF30

Category : Polymer , Thermoplastic , Nylon , Nylon 46

Material Notes:

30% Carbon Reinforced, Heat Stabilized, Wear and Friction Modified

Order this product through the following link:

http://www.lookpolymers.com/polymer_DSM-Stanyl-TW271B6-PA46PTFE-CF30.php

Physical Properties	Metric	English	Comments
Density	1.32 g/cc	0.0477 lb/in ³	dry; ISO 1183
Moisture Absorption	2.40 %	2.40 %	Sim. To ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 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, Ultimate	170 MPa	24700 psi	cond; ISO 527-1/-2
	260 MPa	37700 psi	dry; ISO 527-1/-2
	95.0 MPa	13800 psi	ISO 527-1/-2
	@Temperature 200 °C	@Temperature 392 °F	
	105 MPa	15200 psi	ISO 527-1/-2
	@Temperature 180 °C	@Temperature 356 °F	
	115 MPa	16700 psi	ISO 527-1/-2
	@Temperature 160 °C	@Temperature 320 °F	
	140 MPa	20300 psi	ISO 527-1/-2
	@Temperature 120 °C	@Temperature 248 °F	
Elongation at Break	1.7 %	1.7 %	dry; ISO 527-1/-2
	3.5 %	3.5 %	cond; ISO 527-1/-2
	3.1 %	3.1 %	ISO 527-1/-2
	@Temperature 120 °C	@Temperature 248 °F	
	3.1 %	3.1 %	ISO 527-1/-2
	@Temperature 160 °C	@Temperature 320 °F	
	3.1 %	3.1 %	ISO 527-1/-2
	@Temperature 180 °C	@Temperature 356 °F	

Mechanical Properties	Metric	English	Comments
	@Temperature 200 °C	@Temperature 392 °F	ISO 527-1/-2
Tensile Modulus	14.5 GPa	2100 ksi	cond; ISO 527-1/-2
	24.0 GPa	3480 ksi	dry; ISO 527-1/-2
	11.0 GPa	1600 ksi	ISO 527-1/-2
	@Temperature 200 °C	@Temperature 392 °F	
	11.5 GPa	1670 ksi	ISO 527-1/-2
	@Temperature 180 °C	@Temperature 356 °F	
	12.0 GPa	1740 ksi	ISO 527-1/-2
	@Temperature 160 °C	@Temperature 320 °F	
	13.5 GPa	1960 ksi	ISO 527-1/-2
	@Temperature 120 °C	@Temperature 248 °F	
Fatigue Strength	67.0 MPa	9720 psi	R = 0.1, 8 Hz, dry
	@# of Cycles 1.00e+7 , Temperature 140 °C	@# of Cycles 1.00e+7 , Temperature 284 °F	
	76.0 MPa	11000 psi	R = 0.1, 8 Hz, dry
	@# of Cycles 1.00e+6 , Temperature 140 °C	@# of Cycles 1.00e+6 , Temperature 284 °F	
	86.0 MPa	12500 psi	R = 0.1, 8 Hz, dry
	@# of Cycles 100000 , Temperature 140 °C	@# of Cycles 100000 , Temperature 284 °F	
	97.0 MPa	14100 psi	R = 0.1, 8 Hz, dry
	@# of Cycles 10000 , Temperature 140 °C	@# of Cycles 10000 , Temperature 284 °F	
	110 MPa	16000 psi	R = 0.1, 8 Hz, dry
	@# of Cycles 1000 , Temperature 140 °C	@# of Cycles 1000 , Temperature 284 °F	
Charpy Impact Unnotched	5.00 J/cm ²	23.8 ft-lb/in ²	dry; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	5.00 J/cm ²	23.8 ft-lb/in ²	dry; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	5.50 J/cm ²	26.2 ft-lb/in ²	cond; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Mechanical Properties	8.00 J/cm ² Metric	38.1 ft-lb/in ² English	Comments cond; ISO 179/1eU
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.700 J/cm ²	3.33 ft-lb/in ²	cond; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.700 J/cm ²	3.33 ft-lb/in ²	dry; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.700 J/cm ²	3.33 ft-lb/in ²	dry; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.70 J/cm ²	8.09 ft-lb/in ²	cond; ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	25.0 µm/m-°C	13.9 µin/in-°F	dry; ISO 11359-1/-2
CTE, linear, Transverse to Flow	35.0 µm/m-°C	19.4 µin/in-°F	dry; ISO 11359-1/-2
Melting Point	295 °C	563 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 1.8 MPa (264 psi)	290 °C	554 °F	dry; ISO 75-1/-2

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China