

Stanyl® TW271F6

Polyamide 46
DSM Engineering Plastics

Message:

Stanyl® TW271F6 is a Polyamide 46 (Nylon 46) material filled with 30% glass fiber. It is available in Asia Pacific, Europe, or North America.
Important attributes of Stanyl® TW271F6 are:
Flame Rated
Heat Stabilizer

General Information				
UL YellowCard		E47960-101378889		
Filler / Reinforcement		Glass Fiber,30% Filler by Weight		
Additive		Heat Stabilizer		
Features		Heat Stabilized		
Forms		Pellets		
Physical	Dry	Conditioned	Unit	Test Method
Density	1.54	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.3	--	%	
Flow	0.50	--	%	
Water Absorption (Equilibrium, 23°C, 50% RH)	2.0	--	%	ISO 62
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus				ISO 527-2
--	10000	6000	MPa	
120°C	5250	--	MPa	
160°C	4750	--	MPa	
180°C	4500	--	MPa	
200°C	4250	--	MPa	
Tensile Stress				ISO 527-2
Break	190	110	MPa	
Break, 120°C	100	--	MPa	
Break, 160°C	85.0	--	MPa	
Break, 180°C	80.0	--	MPa	
Break, 200°C	75.0	--	MPa	
Tensile Strain				ISO 527-2
Break	3.5	6.5	%	
Break, 120°C	6.5	--	%	
Break, 160°C	6.5	--	%	
Break, 180°C	6.5	--	%	
Break, 200°C	6.5	--	%	

Flexural Modulus	8500	5700	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	11	11	kJ/m ²	
23°C	13	17	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	65	70	kJ/m ²	
23°C	85	90	kJ/m ²	
Notched Izod Impact Strength				ISO 180/1A
-40°C	11	11	kJ/m ²	
23°C	13	17	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	290	--	°C	ISO 75-2/A
Melting Temperature ¹	295	--	°C	ISO 11357-3
CLTE				ISO 11359-2
Flow	2.5E-5	--	cm/cm/°C	
Transverse	6.0E-5	--	cm/cm/°C	
Thermal Index - 5000 hr	177	--	°C	IEC 60216
Electrical	Dry	Conditioned	Unit	Test Method
Volume Resistivity	1.0E+14	1.0E+9	ohms · cm	IEC 60093
Comparative Tracking Index	400	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flammability Classification				IEC 60695-11-10, -20
0.750 mm	HB	--		
1.60 mm	HB	--		
Injection	Dry	Unit		
Drying Temperature	80.0		°C	
Drying Time	4.0 to 8.0		hr	
Rear Temperature	280 to 320		°C	
Middle Temperature	300 to 320		°C	
Front Temperature	300 to 320		°C	
Nozzle Temperature	300 to 320		°C	
Processing (Melt) Temp	305 to 320		°C	
Mold Temperature	80.0 to 120		°C	
Injection Rate	Moderate-Fast			
Back Pressure	2.00 to 10.0		MPa	
Screw Compression Ratio	2.5:1.0			
NOTE				

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Recommended distributors for this material

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