TECHNYL® RED J 218HP V50 BK 21N

DOMO Engineering Plastics - *Polyamide 66/6T Copolymer*

General Information

Product Description

TECHNYL RED J 218HP V50 BK 21N is a co-polyamide 66/6T reinforced with 50% glass fibre, heat stabilized, for injection moulding. This grade offers outstanding long-term heat ageing performance of up to 220°C for 2000 hours or 210°C for 3000 hours in addition to strength and stiffness at use temperature higher than 35% glass fiber grades. TECHNYL RED J shows high chemical resistance, easy processing and excellent surface aspect. In addition, TECHNYL RED J delivers high burst pressure levels. Recommended melt and mold temperatures are significantly lower than competitive PA4.6 or PPA resins, which saves energy during processing and minimizes part cooling time. The data provided are based on laboratory / experimental results and could be adjusted after industrial production.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Chemical Resistant • Excellent Processability • Good Heat Resistance	• Good Surface Finish • Heat Aging Resistant • Heat Stabilized	• High Stiffness
Uses	• Automotive Applications		
Agency Ratings	• EC 1907/2006 (REACH)		
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
ISO Designation (ISO 16396)	• PA66/6T,GF50,MH,S14-160		
Resin ID (ISO 1043)	• PA66/6T-GF50		

Properties [1]

Physical	Dry	Conditioned	Unit	Test Method
Density	1.58	--	g/cm³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.40 to 0.60	--	%	
Flow	0.20 to 0.40	--	%	
Water Absorption (24 hr, 73°F)	0.40 to 0.50	--	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	1.3 to 1.4	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	2.47E+6	2.10E+6	psi	ISO 527-1
Tensile Stress (Break)	34800	26800	psi	ISO 527-2
Tensile Strain (Break)	2.4	2.8	%	ISO 527-2
Flexural Modulus	2.25E+6	1.96E+6	psi	ISO 178
Flexural Stress	53700	44200	psi	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength (73°F)	7.1	7.4	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength (73°F)	45	48	ft·lb/in²	ISO 179/1eU
Thermal	**Dry**	**Conditioned**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	473	--	°F	ISO 75-2/A
Melting Temperature [2]	523	--	°F	ISO 11357-3
Flammability	**Dry**	**Conditioned**	**Unit**	**Test Method**
Burning Rate (0.0394 in)	< 3.9	--	in/min	FMVSS 302

Processing Information

Injection	Dry	Unit

Drying Temperature	176 °F
Suggested Max Moisture	0.12 %
Rear Temperature	554 to 572 °F
Middle Temperature	563 to 581 °F
Front Temperature	572 to 590 °F
Mold Temperature	185 to 212 °F

Injection Notes

The material is supplied in airtight bags, ready for use. In case that the virgin material has absorbed moisture, it must be dried with a dehumidified air drying equipment, dew point minimum -20°C. Recommended time 2-4h.

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 10°C/min