TECHNYL® A 218 Y10 NATURAL

Polyamide 66

Solvay Engineering Plastics

Message:

TECHNYL® A 218 Y10 is an unreinforced polyamide 66, medium viscosity, heat stabilized and specially modified to have improved frictionnal properties for injection moulding. This grade offers all of the primary properties of unreinforced polyamide 66 and mainly has excellent surface properties as low coefficient of friction and good resistance to wear.

General Information	
Additive	heat stabilizer
Features	Heat Stabilized - Inorganic Low friction coefficient Excellent appearance
Uses	Large household appliances and small household appliances Industrial application Pulley Consumer goods application field
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS compliance
Appearance	Dark gray
Forms	Particle
Processing Method	Injection molding
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)
Resin ID (ISO 1043)	PA66

Physical	Dry	Conditioned	Unit	Test Method
Density	1.16	--	g/cm³	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	1.2	--	%	ISO 62
Equilibrium, 23°C, 50% RH	2.8	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	3900	1500	MPa	ISO 527-2/1A
Tensile Stress				ISO 527-2/1A
Yield, 23°C	83.0	65.0	MPa	ISO 527-2/1A
Fracture, 23°C	92.0	43.0	MPa	ISO 527-2/1A
Tensile Strain				ISO 527-2
Yield, 23°C	10	22	%	ISO 527-2
Fracture, 23°C	9.0	98	%	ISO 527-2
Flexural Modulus (23°C)	2900	1300	MPa	ISO 178

Flexural Stress (23°C)	125	65.0	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	3.5	10	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	No Break	--		ISO 179/1eU
Notched Izod Impact (23°C)	3.5	8.0	kJ/m²	ISO 180
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, not annealed	230	--	°C	ISO 75-2/Bf
1.8 MPa, not annealed	80.0	--	°C	ISO 75-2/Af
Melting Temperature	263	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+14	1.0E+12	ohms	IEC 60093
Volume Resistivity	1.0E+15	1.0E+13	ohms·cm	IEC 60093
Dielectric Strength (2.00 mm)	30	28	kV/mm	IEC 60243-1
Dissipation Factor	0.020	0.11		IEC 60250
Comparative Tracking Index (Solution A)	575	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Oxygen Index	26	--	%	ISO 4589-2
Injection	Dry	Unit		
Drying Temperature	80		°C	
Suggested Max Moisture	0.20		%	
Rear Temperature	265 - 275		°C	
Middle Temperature	270 - 280		°C	
Front Temperature	280 - 285		°C	
Mold Temperature	60 - 80		°C	

Injection instructions

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 mini -20°C. Recommended time 2-4hInjection Advice:
For unfilled polyamide, Solvay recommends the use of high alloy steel with a weak chromium content. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm). For Mould Temperature, in the case of parts where the surface roughness is required we can recommend a temperature of 90°C to 120°C with an optimum at 105°C.
The processing parameters like processing temperatures are a recommendation and can be adjusted in function of injection machine size, part geometry / design

Recommended distributors for this material

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