TECHNYL® ALLOY KC 246 NATURAL

Polyamide 6 + ABS

Solvay Engineering Plastics

Message:

TECHNYL® ALLOY KC 246 Natural is an unfilled grade based on blend of polyamide 6 and acrylonitrile butadiene styrene (PA6 + ABS), impact modified, for injection moulding. This grade offers high mechanical properties, good dimensional stability and good processability. This grade offers an excellent impact with an ideal combination between stiffness and toughness.

It is a synergistic blend material between Polyamide 6 and ABS with an ideal property combination, meaning that it has dual characteristics between semi-crystalline and amorphous polymers.

General Information							
Features		Impact resistance, high					
Uses		Furniture					
		Sporting goods					
Agency Ratings		EC 1907/2006 (REACH)					
RoHS Compliance		RoHS compliance					
Appearance		Black					
		Grey					
		Natural color					
Forms		Particle					
Processing Method		Injection molding					
Resin ID (ISO 1043)		PA6+ABS					
Physical	Dry	Conditioned	Unit	Test Method			
Density	1.08		g/cm³	ISO 1183/A			
Water Absorption (23°C, 24 hr)	0.90		%	ISO 62			
Mechanical	Dry	Conditioned	Unit	Test Method			
Tensile Modulus (23°C)	2250		MPa	ISO 527-2/1A			
Tensile Stress (Break, 23°C)	53.0		MPa	ISO 527-2/1A			
Tensile Strain (Break, 23°C)	94		%	ISO 527-2			
Flexural Modulus (23°C)	2150		MPa	ISO 178			
Impact	Dry	Conditioned	Unit	Test Method			
Charpy Notched Impact Strength (23°C)	63		kJ/m²	ISO 179/1eA			
Charpy Unnotched Impact Strength (23°C)	No Break			ISO 179/1eU			
Notched Izod Impact (23°C)	48		kJ/m²	ISO 180			
			Unit				

0.45 MPa, not annealed 105 °C ISO 75-2/Bf 1.8 MPa, not annealed 70.0 °C ISO 75-2/Af Melting Temperature 225 °C ISO 11357-3 Electrical Dry Conditioned Unit Test Method Comparative Tracking Index (Solution A) 600 V IEC 60112 Flammability Dry Conditioned Unit Test Method Flame Rating (0.8 mm) HB Unit Test Method Glow Wire Flammability Index Flame Rating (0.8 mm) HB Unit IEC 60695-2-12 0.8 mm 750 °C IEC 60695-2-12 IEC 60695-2-12 1.6 mm 650 °C IEC 60695-2-12 Injection Dry Unit Unit IEC 60695-2-12 Suggested Max Moisture 0.20 "C IEC 60695-2-12 Widdle Temperature 250 - 260 "C "C Front Temperature 250 - 260 "C					
Melting Temperature 225 °C ISO 11357-3 Electrical Dry Conditioned Unit Test Method Comparative Tracking Index (Solution A) 600 V IEC 60112 Flammability Dry Conditioned Unit Test Method Flame Rating (0.8 mm) HB UL 94 Glow Wire Flammability Index Flame Flammability Index IEC 60695-2-12 0.8 mm 750 °C IEC 60695-2-12 1.6 mm 650 °C IEC 60695-2-12 1njection Dry Unit Unit IEC 60695-2-12 1njection Dry Unit Unit IEC 60695-2-12 Suggested Max Moisture 0.20 % *C Suggested Max Moisture 0.20 % *C Middle Temperature 235 - 240 *C *C Middle Temperature 250 - 260 *C *C	0.45 MPa, not annealed	105		°C	ISO 75-2/Bf
Electrical Dry Conditioned Unit Test Method	1.8 MPa, not annealed	70.0		°C	ISO 75-2/Af
Note	Melting Temperature	225		°C	ISO 11357-3
Index (Solution A) 600 V IEC 60112 Flammability Dry Conditioned Unit Test Method Flame Rating (0.8 mm) HB UL 94 Glow Wire Flammability Index IEC 60695-2-12 IEC 60695-2-12 0.8 mm 750 °C IEC 60695-2-12 1.6 mm 650 °C IEC 60695-2-12 3.2 mm 650 °C IEC 60695-2-12 Injection Dry Unit °C Suggested Max Moisture 0.20 % *C Suggested Max Moisture 235 - 240 °C *C Middle Temperature 240 - 250 °C *C Front Temperature 250 - 260 °C *C	Electrical	Dry	Conditioned	Unit	Test Method
Flame Rating (0.8 mm) HB UL 94 Glow Wire Flammability Index		600		V	IEC 60112
Signary Sign	Flammability	Dry	Conditioned	Unit	Test Method
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1.6 mm 650 °C IEC 60695-2-12 3.2 mm 650 °C IEC 60695-2-12 Injection Dry Unit Drying Temperature 80 °C Suggested Max Moisture 0.20 % Rear Temperature 235 - 240 °C Middle Temperature 240 - 250 °C Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	•				IEC 60695-2-12
3.2 mm 650 °C IEC 60695-2-12 Injection Dry Unit C Drying Temperature 80 °C Suggested Max Moisture 0.20 % Rear Temperature 235 - 240 °C Middle Temperature 240 - 250 °C Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	0.8 mm	750		°C	IEC 60695-2-12
InjectionDryUnitDrying Temperature80°CSuggested Max Moisture0.20%Rear Temperature235 - 240°CMiddle Temperature240 - 250°CFront Temperature250 - 260°CMold Temperature60 - 90°C	1.6 mm	650		°C	IEC 60695-2-12
Drying Temperature 80 °C Suggested Max Moisture 0.20 % Rear Temperature 235 - 240 °C Middle Temperature 240 - 250 °C Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	3.2 mm	650		°C	IEC 60695-2-12
Suggested Max Moisture 0.20 % Rear Temperature 235 - 240 °C Middle Temperature 240 - 250 °C Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	Injection	Dry	Unit		
Rear Temperature 235 - 240 °C Middle Temperature 240 - 250 °C Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	Drying Temperature	80		°C	
Middle Temperature 240 - 250 °C Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	Suggested Max Moisture	0.20		%	
Front Temperature 250 - 260 °C Mold Temperature 60 - 90 °C	Rear Temperature	235 - 240		°C	
Mold Temperature 60 - 90 °C	Middle Temperature	240 - 250		°C	
	Front Temperature	250 - 260		°C	
Injection instructions	Mold Temperature	60 - 90		°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

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