TECHNYL® ALLOY KC 216 V12 BLACK

Polyamide 6 + ABS

Solvay Engineering Plastics

Message:

TECHNYL® ALLOY KC 216 V12 Black is a grade based on a blend of polyamide 6 and acrylonitrile butadiene styrene, reinforced with 12% of glass fiber for injection moulding. This grade offers high mechanical properties, good dimensional stability and good processability. 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	
Filler / Reinforcement	Glass fiber reinforced material, 12% filler by weight
Features	Good dimensional stability Good demoulding performance
Uses	Electrical appliances Power/other tools Industrial application Application in Automobile Field Consumer goods application field
Agency Ratings	EC 1907/2006 (REACH)
RoHS Compliance	RoHS compliance
Appearance	Black
Forms	Particle
Processing Method	Injection molding
Resin ID (ISO 1043)	PA6+ABS-GF12

Physical	Dry	Conditioned	Unit	Test Method
Density	1.18	--	g/cm³	ISO 1183/A
Water Absorption (23°C, 24 hr)	1.0	--	%	ISO 62
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus (23°C)	4800	2800	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	96.0	55.0	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	3.3	--	%	ISO 527-2
Flexural Modulus (23°C)	4300	2700	MPa	ISO 178
Flexural Stress (23°C)	160	80.0	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	4.0	--	kJ/m²	ISO 179/1eA
23°C	7.0	15	kJ/m²	ISO 179/1eA

Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	50	90	kJ/m²	ISO 179/1eU
23°C	50	90	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	8.0	16	kJ/m²	ISO 180
Unnotched Izod Impact Strength (23°C)	40	80	kJ/m²	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (0.45 MPa, Unannealed)	200	--	°C	ISO 75-2/Bf
Melting Temperature	220	--	°C	ISO 11357-3
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (Solution A)	575	--	V	IEC 60112
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	70 - 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 reinforced polyamide, Solvay recommends the use of steel with a high content of Carbon and purified for polishing to avoid or limit the abrasion. For example: X38CrMoV5-1 (EN Norm) - 1.2367 /1.2343 (DIN Norm) or X160CrMoV12 (EN Norm) - 1.2601 /1.2379 (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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