

# TECHNYL® AR 218 V30 BLACK

Polyamide 66

Solvay Engineering Plastics

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## Technical Data

### Product Description

TECHNYL® AR 218 V30 Black is a polyamide 66, reinforced with 30% of glass fiber, heat stabilized, for injection moulding. It contains recycled materials. This grade offers a good combination between thermal and mechanical properties.

### General

Material Status	• Commercial: Active
Search for UL Yellow Card	• Solvay Engineering Plastics • TECHNYL®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized - Inorganic
Uses	• General Purpose
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding
Resin ID (ISO 1043)	• PA66-GF30

Physical	Dry	Conditioned	Unit	Test Method
Density	1.37	--	g/cm <sup>3</sup>	ISO 1183/A
Water Absorption				ISO 62
23°C, 24 hr	0.80	--	%	
Saturation, 23°C	5.3	--	%	
Equilibrium, 23°C, 50% RH	1.7	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus (23°C)	9900	6300	MPa	ISO 527-2/1A
Tensile Stress (Break, 23°C)	150	90.0	MPa	ISO 527-2/1A
Tensile Strain (Break, 23°C)	2.4	4.0	%	ISO 527-2
Flexural Modulus (23°C)	7000	5000	MPa	ISO 178
Flexural Strength				
23°C	220	--	MPa	ASTM D790
23°C	200	135	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	--	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	45	55	kJ/m <sup>2</sup>	ISO 179/1eU
Notched Izod Impact Strength (23°C)	8.0	--	kJ/m <sup>2</sup>	ISO 180
Unnotched Izod Impact Strength (23°C)	6.0	11	kJ/m <sup>2</sup>	ISO 180/1U
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	240	--	°C	ISO 75-2/Bf
1.8 MPa, Unannealed	235	--	°C	ISO 75-2/Af
Melting Temperature	260	--	°C	ISO 11357-3
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.6 mm)	HB	--		UL 94
Glow Wire Flammability Index (1.6 mm)	650	--	°C	IEC 60695-2-12
Oxygen Index	23	--	%	ISO 4589-2



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Injection	Dry Unit
Drying Temperature	80 °C
Suggested Max Moisture	0.20 %
Rear Temperature	270 to 280 °C
Middle Temperature	275 to 285 °C
Front Temperature	280 to 290 °C
Mold Temperature	70 to 100 °C

## 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 mini -20°C. Recommended time 2-4h

### Injection 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

## Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.



**Where to Buy****Supplier****Solvay Engineering Plastics**

, Germany

**Telephone:** +49-800-55-400-600**Web:** <http://www.rhodia.com/>**Distributor****Amco Polymers****Telephone:** 800-262-6685**Web:** <http://www.amcopolymers.com/>**Availability:** North America**GAZECHIM PLASTIQUES***GAZECHIM PLASTIQUES is a Pan European distribution company. Contact GAZECHIM PLASTIQUES for availability of individual products by country.***Telephone:** +33-4-67-49-55-37**Web:** <http://www.gazechim.com/>**Availability:** France**Nexeo Solutions - Europe***Nexeo Solutions is a Pan European distribution company. Contact Nexeo for availability of individual products by country.***Telephone:** +34-93-480-9125**Web:** <http://www.nexeosolutions.com/>**Availability:** Italy**Polymer Technology & Services, LLC****Telephone:** 800-475-1701**Web:** <http://www.ptslc.com/>**Availability:** North America**RESINEX Group***RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.***Telephone:** +32-14-672511**Web:** <http://www.resinex.com/>**Availability:** Europe**Southland Polymers***Southland Polymers - Full Service Engineering and Commodity Resin Distribution Since 1979***Telephone:** 562-921-0444**Web:** <http://www.southlandpolymers.com/>**Availability:** Central America, North America, South America**TER HELL PLASTIC GMBH***TER HELL PLASTIC is a Pan European distribution company. Contact TER HELL PLASTIC for availability of individual products by country.***Telephone:** +49-232-3941-0**Web:** <http://www.terhell.de/>**Availability:****The Materials Group****Telephone:** 616-863-6046**Web:** <http://thematerialsgroup.com/>**Availability:** North America