



Gantiel Vensott Pty. Ltd.

Venlon 6GB

[MoS₂ filled Cast Nylon]

TECHNICAL DATA SHEET:



Venlon 6GB Product Description

This black cast grade, produced by an anionic polymerization casting process and carbon fillers, demonstrates similar characteristics to PA 66. Cast materials contain significantly lower stress levels combined with high strength, good creep and wear

resistance resulting in great dimensional stability when machining. It offers the possibility of manufacturing large-sized stock shapes as well as custom castings which require only minimal machining. With material being more dimensionally stable comparing to the one of widely used polyolefin, it can be used for a much closer tolerance

Venlon 6GB Plastics Applications

Nylon is used for a wide range of industrial components both for Original Equipment Manufacture and maintenance. Some examples: wear pads, support and guide wheels, conveyor rollers, tension rollers, pulleys and pulley linings, cams, hammer heads, scrapers, gear wheels, sprockets, feed screws, star wheels, chopping boards, insulators, bearing slides, roller sleeves, impact blocks, full & segmented gears, outrigger pads, pump seats, gate rollers & support wheels, etc.

Other Material Properties

It combines high strength, stiffness and hardness with good creep and wear resistance, heat ageing properties, very good impact properties and machinability. As well as high tensile strength and high modulus of elasticity.

Property	Method of verification	Unit	Value
Specific Gravity	D792	g/cm ³	1.15—1.17
Tensile Strength	D638	psi	10,000—13,500
Tensile Elongation	D638	%	20—55
Tensile Modulus	D638	psi	400,000—550,000
Compressive Strength	D695	psi	13,500—16,000
Compressive Modulus	D695	psi	325,000—400,000
Flexural Strength	D790	psi	15,500—17,500
Flexural Modulus	D790	psi	420,000—500,000
Shear Strength	D732	psi	10,000—11,000
Notched Izod impact	D256	ft.lbs/in.	0.7—0.9
Hardness Rockwell	D785	R	115—125
Hardness Shore	D2240	D	78—83
Melting Point	D789	°F	450 +/- 10
Coefficient of linear Thermal Expansion	D696	in./in./°F	5.0 x 10 ⁻⁵
Deformation under load	D621	%	0.5—2.5
Deflection Temperature 264 psi	D648	°F	200—400
66 psi	D648	°F	400—430
Continuous Service Temperature		°F	230
Intermittent Service Temperature		°F	330
Coefficient of Friction: Dynamic	D1894	%	0.22
Water Absorption 24 Hours	D570	%	0.5—0.6
Saturation	D570	%	5.0—6.0
Dielectric Strength	D149	v/mil.	500—600
Dielectric Constant 60 Cycles	D150		3.7
1,000 Cycles	D150		3.7
100,000 Cycles	D150		3.7
Compliance	FDA USDA 3A UL 94 HB		NOT Compliant NOT Compliant NOT Compliant

Venlon 6GB Delivery Program (Black)

Venlon 6GB Sheet

Thickness—Sizes:
6mm to 60mm—2440mm x 1220mm
6mm to 100mm—1220mm x 610mm
Note: Specialty sheet size and blocks are available on request ex o/seas

Venlon 6GB Rod

Outside Diameter: 25mm to 500mm

Venlon 6GB Tube

(Non-stock items available on request)

Key Features and Benefits:

- High impact resistance
- Good load bearing properties
- Excellent vibration resistance
- Resistance to brittleness & deterioration
- Good dimensional stability
- Very good wear & abrasion resistance

Please note:
1g/cm³=1000kg/m³
1MPa=1N/mm²
1KV/mm=1MV/m



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— Engineering Plastic Solutions —

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