

# Quadrant EPP Nylatron® GS

Polyamide 66

Quadrant Engineering Plastic Products

PROSPECTOR®

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## Technical Data

### Product Description

Quadrant EPP Nylatron® GS is a Polyamide 66 (Nylon 66) product. It is available in Europe. Typical application: Engineering/Industrial Parts.

Characteristics include:

- Flame Rated
- Chemical Resistant
- Good Dimensional Stability
- Heat Resistant
- High Strength

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>
Search for UL Yellow Card	• <a href="#">Quadrant Engineering Plastic Products</a>
Availability	• Europe
Additive	• Molybdenum Disulfide Lubricant
Features	• Good Dimensional Stability • Good Wear Resistance • Grease Resistant • High Heat Resistance • High Rigidity • High Strength • Low Friction • Lubricated • Oil Resistant • Scratch Resistant • Self Lubricating • Solvent Resistant • Sound Damping
Uses	• Bearings • Bushings • Gears • Thrust Washer • Valves/Valve Parts • Wear Strip
Appearance	• Black • Grey
Forms	• Rod • Sheet • Tubing

Physical	Dry	Conditioned	Unit	Test Method
Density	1.15	--	g/cm <sup>3</sup>	ISO 1183
Water Absorption				ISO 62
23°C, 24 hr, 3.00 mm	0.68	--	%	
Saturation, 23°C	7.8	--	%	
Equilibrium, 23°C, 50% RH	2.3	--	%	
Water Absorption				ISO 62
23°C, 3.00 mm <sup>3</sup>	1.3	--	%	
23°C, 3.00 mm <sup>4</sup>	85.0	--	mg	
23°C, 3.00 mm <sup>5</sup>	46.0	--	mg	

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3500	1680	MPa	ISO 527-2/1B/1
Tensile Stress (Yield)	92.0	55.0	MPa	ISO 527-2/1B/20
Tensile Strain (Break)	20	> 50	%	ISO 527-2/1B/20
Tensile Creep Modulus <sup>6, 7</sup> (1000 hr)	21.0	9.00	MPa	ISO 899-1
Compressive Stress				ISO 604/1
5% Strain	92.0	--	MPa	
2% Strain	49.0	--	MPa	
1% Strain	25.0	--	MPa	

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength	4.0	--	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength	No Break	--		ISO 179/1eU
Notched Izod Impact Strength	4.0	9.0	kJ/m <sup>2</sup>	ISO 180/2A

Hardness	Dry	Conditioned	Unit	Test Method
Rockwell Hardness (M-Scale, 10.0 mm)	88	--		ISO 2039-2
Ball Indentation Hardness (10.0 mm)	165	--	MPa	ISO 2039-1



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Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature 1.8 MPa, Unannealed	85.0	--	°C	ISO 75-2/A
Continuous Use Temperature				
-- <sup>8</sup>	80.0	--	°C	
-- <sup>9</sup>	95.0	--	°C	
-- <sup>10</sup>	180	--	°C	
Melting Temperature (DSC)	255	--	°C	
CLTE - Flow				
23 to 60°C	8.0E-5	--	cm/cm/°C	
23 to 100°C	9.0E-5	--	cm/cm/°C	
Thermal Conductivity (23°C)	0.29	--	W/m/K	
Service Temperature - Minimum	-20	--	°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	> 1.0E+13	> 1.0E+12	ohms	IEC 60093
Volume Resistivity	> 1.0E+14	> 1.0E+12	ohms-cm	IEC 60093
Electric Strength (1.00 mm, in Oil)	26	17	kV/mm	IEC 60243-1
Relative Permittivity				IEC 60250
100 Hz	3.80	7.40		
1 MHz	3.30	3.80		
Dissipation Factor				IEC 60250
100 Hz	0.013	0.13		
1 MHz	0.020	0.060		
Comparative Tracking Index	600	600	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating				UL 94
3.00 mm	HB	--		
6.00 mm	HB	--		
Oxygen Index	26	--	%	ISO 4589-2

## Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 96 hrs

<sup>4</sup> Weight, 96 hrs

<sup>5</sup> Weight, 24 hrs

<sup>6</sup> Type 1B

<sup>7</sup> 1% Strain

<sup>8</sup> 20000 hrs

<sup>9</sup> 5000 hrs

<sup>10</sup> Short periods



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### Where to Buy

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#### Supplier

##### Quadrant Engineering Plastic Products

Reading, PA USA

Telephone: 800-366-0300

Web: <http://www.quadrantepp.com/>

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#### Distributor

Please contact the supplier to find a distributor for Quadrant EPP Nylatron® GS

