

TECHNICAL DATA SHEET

RILSAN® BZM 23 G9

POLYAMIDE 11 PELLET

RILSAN® BZM 23 G9 is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This black glass fiber reinforced grade with improved friction properties is designed for injection molding.

Designation : ISO 16396 - PA11, GF23+CDx, M1G1HLRS, C18-060

TYPE

PA11-GF23

MAIN APPLICATIONS

- Industry - Distribution

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Lubricants

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Shrinkage, Parallel (t+24h)	0.3	%	ISO 294-4
Shrinkage, Normal (t+24h)	1.0	%	ISO 294-4
Melt volume flow rate (MVR), 235°C / 5 kg (455°F / 11 lb)	9	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Tensile modulus, 23°C (73°F), 1 mm/min	5600 / 5600	MPa	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	- / 5400	MPa	ISO 178
Charpy unnotched impact strength, 23°C (73°F)	- / 74	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / 83	kJ/m2	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	- / 13	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 10	kJ/m2	ISO 179 1eA
Hardness, Shore D, 15 s	- / 74		ISO 868

*DRY: Dry As Molded (DAM) if pellet / Dry if powder.
COND: Conditionned.

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THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melting temperature, 10°C/min	186	°C	ISO 11357-1/-3
Vicat softening temperature, 50N at 50°C/h	170	°C	ISO 306
Heat deflection temperature, 0.45 MPa	178	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	170	°C	ISO 75-1/-2

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / 6.0E+12	Ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / 2.0E+11	Ohm.m	IEC 62631-3-1
Comparative tracking index, 23°C (73°F)	- / 300		IEC 60112
Dielectric stress, 23°C (73°F)	- / 22	kV/mm	IEC 60243-1
Relative permittivity, 100Hz	- / 5		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 5		IEC 62631-2-1
Dissipation factor, 100Hz	- / 334	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	- / 334	E-4	IEC 62631-2-1

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COND: Conditionned.

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Specific gravity, 23°C (73°F)	1.22	g/cm ³	ISO 1183-1
Water absorption, 23°C (73°F), immersion, equilibrium	1.2	%	ISO 62

PACKAGING

Available packaging:
• 25 kg / 55 lb bags

SHELF LIFE

Two years from the date of delivery, when stored properly (sealed bags, appropriate moisture, UV protection and temperature). For any use above this limit, please refer to our technical services.

PROCESSING CONDITIONS:

- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 250°C / 270°C / 290°C (480°F / 520°F / 555°F)
- Typical mold temperature - Injection molding: 40-90°C (105-195°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

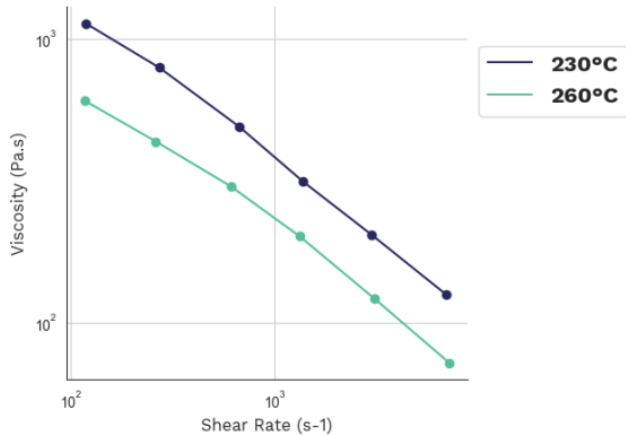
SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

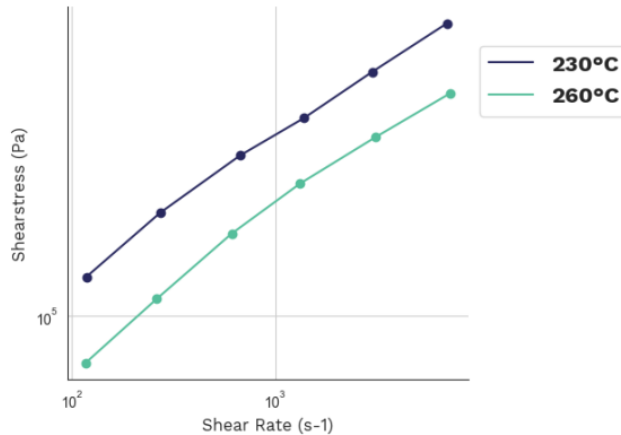
RILSAN® BZM 23 G9

DIAGRAMS

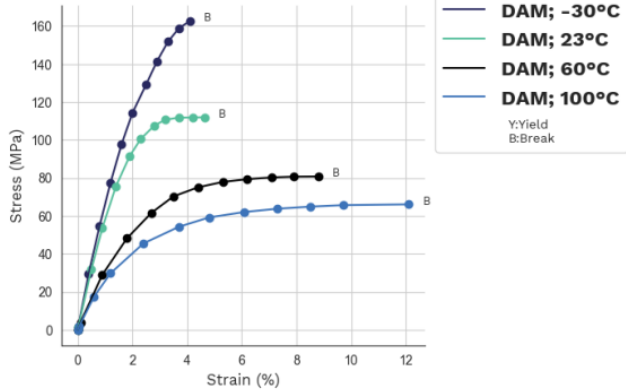
Viscosity-shear rate
Rilsan® BZM 23 G9



Shearstress-shear rate
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Stress-strain
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Dynamic Shear modulus-temperature
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