

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

DESIGNATION

PA11-GF23

MAIN APPLICATIONS

- Industry - Distribution

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

ADDITIVES

- Lubricants

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	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 cm ³ /10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	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/m ²	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / 83 kJ/m ²	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	- / 13 kJ/m ²	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 10 kJ/m ²	ISO 179 1eA
Hardness, Shore D, 15 s	- / 74	ISO 868

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

THERMAL PROPERTIES

PROPERTIES	VALUE	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

RILSAN® BZM 23 G9

ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	TEST STANDARD
Surface resistivity, 23°C (73,4°F)	- / 6.0E+12 ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73,4°F)	- / 2.0E+11 ohm/m	IEC 62631-3-1
Comparative tracking index, 23°C (73,4°F)	- / 300	IEC 60112
Dielectric stress, 23°C (73,4°F)	- / 22	IEC 60243-1
Relative permittivity, 100Hz	- / 5	IEC 60250
Relative permittivity, 1Mhz	- / 5	IEC 60250
Dissipation factor, 100Hz	- / 334	IEC 60250
Dissipation factor, 1Mhz	- / 334	IEC 60250

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

OTHER PROPERTIES

PROPERTIES	VALUE	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

This grade is delivered dried in sealed packaging ready to be processed. 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

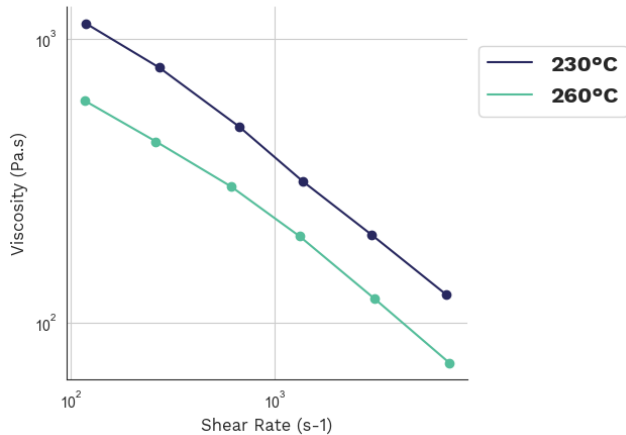
SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

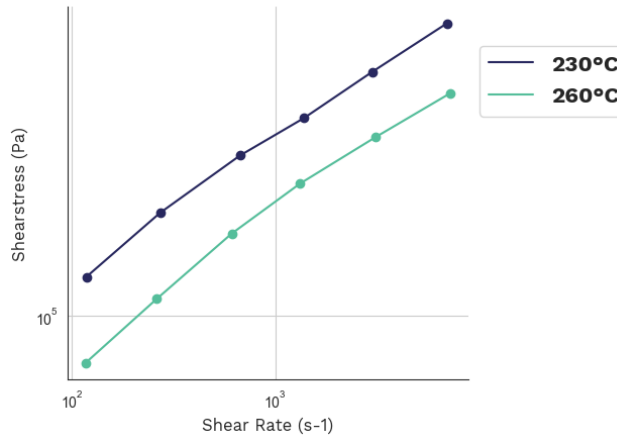
RILSAN® BZM 23 G9

DIAGRAMS

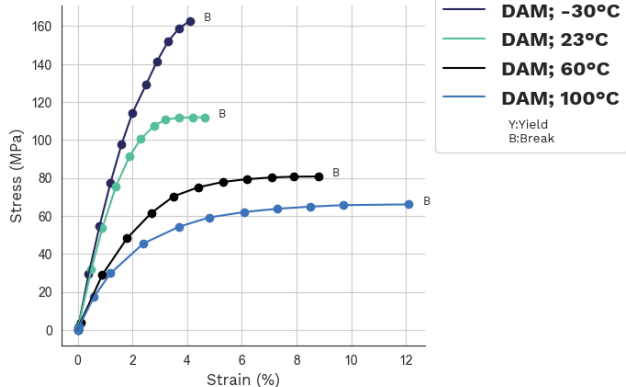
Viscosity-shear rate
Rilsan® BZM 23 G9



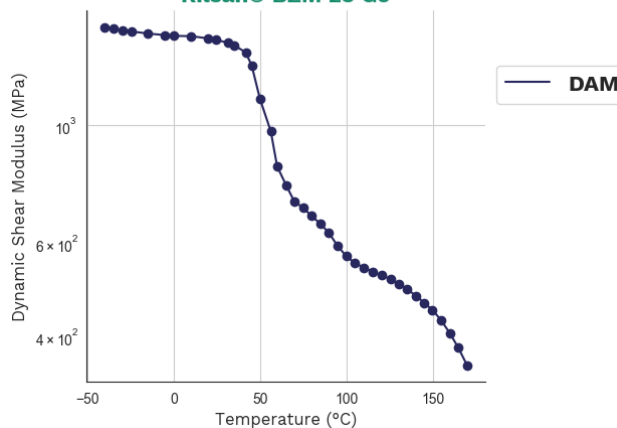
Shearstress-shear rate
Rilsan® BZM 23 G9



Stress-strain
Rilsan® BZM 23 G9



Dynamic Shear modulus-temperature
Rilsan® BZM 23 G9



Headquarter: Arkema France
420, rue d'Estienne d'Orves
92705 Colombes Cedex – France
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/global/en/products/product-safety/disclaimer/> which is incorporated herein by reference and made a part hereof.
Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790