

# RILSAN® X1002

ISO 16396 – PA11, GF50, M1GHRLR, C18-120

**Rilsan® X1002 is a fibreglass reinforced polyamide 11 produced from a renewable source.**

**This black colored grade is designed for injection.**

This document was generated using lots 89649/ 90454/ 90592/ 90592/ 93724 that were evaluated in R&D study D18-1495, D19-1227, D20-0077, D20-0125, D20-0260, D20-0673 & D23-0856

Properties	Typical Value (dry / cond*)	Unit	Test Standard
<b>ISO DESIGNATION</b>	Poyamide 11	NA	
<b>Mechanical Properties</b>			
<b>Tensile Test</b>			
- Stress at Yield	156/ -	MPa	ISO 527 1A (23°C)
- Strain at Yield	5 / -	%	
- Tensile Modulus	12.5 / -	GPa	
<b>Charpy Impact</b>			
- Unnotched 23°C	No Break	kJ/m <sup>2</sup>	ISO 179 1eU
- Unnotched -40°C	No Break	kJ/m <sup>2</sup>	
- V-notched 23°C	23	kJ/m <sup>2</sup>	ISO 179 1eA
- V-notched -40°C	17	kJ/m <sup>2</sup>	
<b>Thermal Properties</b>			
<b>Melting Point</b>	189	°C	ISO 11357 (10°C/min)
<b>General Properties</b>			
<b>Density</b>	1.47	g/cm <sup>3</sup>	ISO 1183
<b>MVI @ 235 °C &amp; 5 kg</b>	2.5	cc/10min	

**\*cond: samples conditioned 15 days at 23°C - 50 % relative humidity**

#### MAIN APPLICATIONS

- Quick connectors

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# RILSAN® X1002

RILSAN® polyamides pellets are packed in sealed bags and are ready for use. If bags of RILSAN® polyamides are open for more than 2 hours, It is necessary to dry to product as described below:

Drying Processing conditions	Typical values	Unit
<b>General Recommendations</b>	Desiccant dryer (dew point ≤ -25°C)	
- Drying equipment	4 – 6	hours
- Drying Time	80 – 90	°C
- Drying Temperature	≤ 0,1 % (before processing)	%
- Recommended moisture content		

Injection Processing conditions	Typical values	Unit
<b>Melt Temperature (min-nominal-max)</b>		
- Feeding zone	240 – 260 – 280	°C
- Central zone	250 – 270 – 290	°C
- Nozzle	260 – 280 – 300	°C
<b>Other parameters</b>		
- Mold temperature (min-max)	40 – 90	°C
- Holding pressure	Between 50% and 90% of the max injection pressure reached in the dynamic phase (filling)	Bar
- Screw speed		Bar
- Back pressure		min
- Maximum residence time		

Venting channels are required on the tool to prevent burning marks.

#### SHELF LIFE

- Two years from the date of delivery.
- For any use above this limit, please refer to our technical services.

#### HEALTH & SAFETY

- See Safety Data Sheet for Health & Safety Considerations

#### REGIONAL AVAILABILITY

NORTH AMERICA, ASIA, EUROPE

#### DELIVERY FORM

DRIED PELLETS IN SEALED PACKAGING (25 KG BAGS) READY TO BE PROCESSED.

#### Headquarters:

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