

RILSAN® BMNO P40 TLD

PA11-P, MHLR, 12-003

Rilsan® BMNO P40 TLD resin is a polyamide 11 produced from a renewable source. This natural grade is plasticized and designed for injection molding.

The percentage of renewable carbon according to ASTM D 6866 (calculated) is **>88%**.

MAIN CHARACTERISTICS

PROPERTIES	DRY / COND	UNIT	TEST STANDARD
RHEOLOGICAL PROPERTIES			
Melt Volume-Flow Rate	35 / *	cm³/10min	ISO 1133
Temperature	235 / *	°C	-
Load	2.16 / *	kg	-
Molding Shrinkage, parallel	1.2 / *	%	ISO 294-4, 2577
Molding Shrinkage, normal	1.0 / *	%	ISO 294-4, 2577
MECHANICAL PROPERTIES			
Tensile Modulus	- / 345	MPa	ISO 527-1/-2
Yield stress	- / 25	MPa	ISO 527-1/-2
Yield strain	- / 42	%	ISO 527-1/-2
Nominal Strain at Break	- / >50	%	ISO 527-1/-2
Shore D Hardness, 15s	58 / *	-	ISO 7619-1
Charpy Impact Strength, +23°C	- / No Break	kJ/m²	ISO 179/1eU
Charpy Impact Strength, -30°C	- / No Break	kJ/m²	ISO 179/1eU
Charpy Notched Impact Strength, +23°C	- / No Break	kJ/m²	ISO 179/1eA
Charpy Notched Impact Strength, -30°C	- / 6	kJ/m²	ISO 179/1eA
THERMAL PROPERTIES			
Melting Temperature, 10°C/min	181 / *	°C	ISO 11357-1/-3
Temp. of Deflection Under Load, 1.80 MPa	45 / *	°C	ISO 75-1/-2
Temp. of Deflection Under Load, 0.45 MPa	130 / *	°C	ISO 75-1/-2
Vicat Softening Temperature, 50°C/h 50N	140 / *	°C	ISO 306
Coeff. of Linear Thermal Expansion, parallel	110 / *	E-6/K	ISO 11359-1/-2
ELECTRICAL PROPERTIES			
Relative Permittivity, 100Hz	10 / -	-	IEC 60250
Relative Permittivity, 1MHz	4 / -	-	IEC 60250
Dissipation Factor, 100Hz	1790 / -	E-4	IEC 60250
Dissipation Factor, 1MHz	964 / -	E-4	IEC 60250
Volume Resistivity	- / 1E9	Ohm*m	IEC 60093
Surface Resistivity	* / 5E11	Ohm	IEC 60093

Arkema France - A French "société anonyme", registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790 SIRET 319 632 790 0001

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

RILSAN®
BY **ARKEMA**

RILSAN® BMNO P40 TLD

Dielectric (Electric) Strength	- / 23	kV/mm	IEC 60243-1
Comparative Tracking Index	* / 600	-	IEC 60112
OTHER PROPERTIES			
Water Absorption	1.6 / *	%	Sim. to ISO 62
Density	1050 / 1050	kg/m ³	ISO 1183
%Bio-Based	88	-	ASTM D6866

MAIN APPLICATIONS:

- Tennis racquet bumpers

PACKAGING:

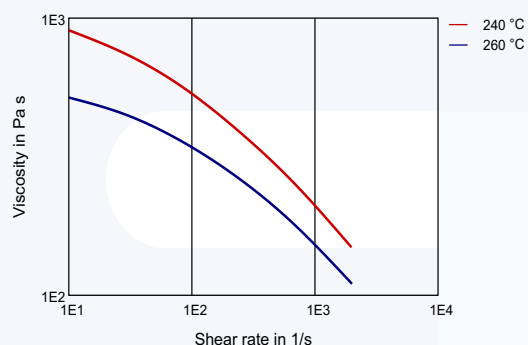
This grade is delivered dried in sealed packaging (25 kg bags) ready to be processed.

SHELF LIFE:

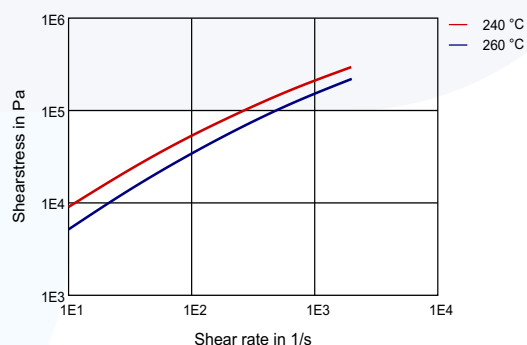
Two years from the delivery. For any use above this limit, please refer to our technical services.

DIAGRAMS

VISCOSITY-SHEAR RATE

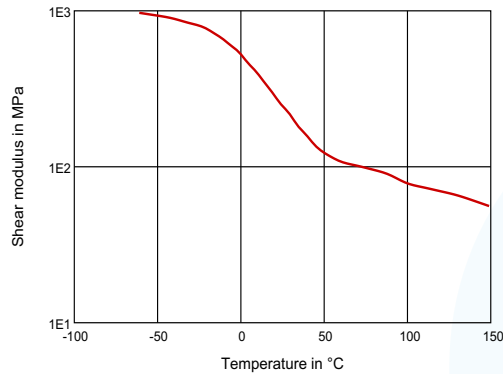


SHEARSTRESS-SHEAR RATE

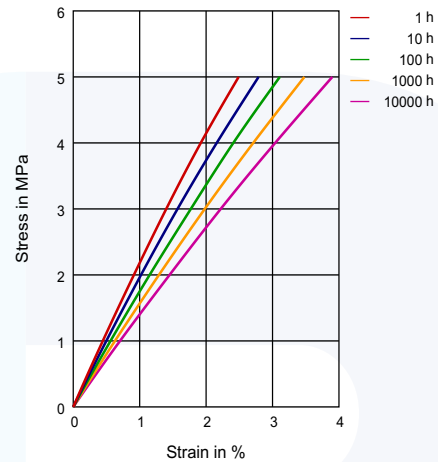


RILSAN® BMNO P40 TLD

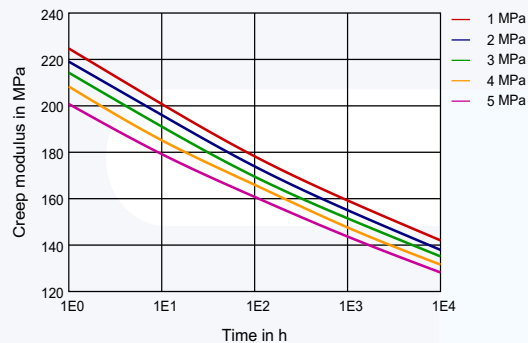
DYNAMIC SHEAR MODULUS-TEMPERATURE



STRESS-STRAIN (ISOCHRONOUS) 23°C



CREEP MODULUS-TIME 23°C



Processing conditions:

- Typical melt temperature (Min / Recommended / Max) : 210°C / 230°C / 280°C.
- Mold temperature : 20 - 60°C
- Drying time and temperature (only necessary for bags opened for more than two hours) : 4-6 hours at 80-90°C.

PROCESSING

Injection Molding

SPECIAL CHARACTERISTICS

Bio-Based, Heat Stabilized, Light Stabilized

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

RILSAN®
BY **ARKEMA**

RILSAN® BMNO P40 TLD

DELIVERY FORM

Pellets

ADDITIVES

Release agent, Plasticizer

REGIONAL AVAILABILITY

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Arkema France - A French "société anonyme" registered in the Nanterre (France) Trade and Companies Register under the number 319 632 790
SIC/11-2018

Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/en/products/product-safety/disclaimer/index.html>

Rilsan® is a registered trademark of Arkema
© 2022 Arkema Inc. All rights reserved.

rilsan.com

Arkema Inc. – Technical Polymers

900 First Avenue
King of Prussia, PA 19406
Tel.: +1 610 205 7000
Fax: +1 610 205 7497
arkema-america.com

RILSAN®
BY ARKEMA

Headquarters: Arkema France

420, rue d'Estienne d'Orves
92705 Colombes Cedex – France
Tel.: +33 1 49 00 80 80
Fax: +33 1 49 00 83 96
arkema.com