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RILSAN®

TECHNICAL DATA SHEET

RILSAN® BESNO P40 TL

POLYAMIDE 11 PELLET

RILSAN® BESNO P40 TL is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for tube extrusion. It's a market reference in the air brake (PHL) & automotive fluid transfer line applications.

Designation : ISO 16396 - PA11-P, EG1HL, C22-003

TYPE

PA11-P

MAIN APPLICATIONS

- Auto - Gasoline Lines
- Auto - Vacuum & Blow By Lines

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Extrusion - General
- Tube Extrusion

ADDITIVES

- Heat Stabilized
- Light Stabilized
- Plasticizer

MECHANICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Hardness, Shore D, 15 s	- / 60		ISO 868
Charpy unnotched impact strength, 23°C (73°F)	- / No Break		ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	- / No Break		ISO 179 1eU
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50	%	ISO 527-1/-2
Tensile modulus, 23°C (73°F), 1 mm/min	- / 345	MPa	ISO 527-1/-2
Charpy notched impact strength, 23°C (73°F)	No Break / No Break		ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 7	kJ/m2	ISO 179 1eA
Flexural modulus, 23°C (73°F)	- / 350	MPa	ISO 178

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

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Vicat softening temperature, 50N at 50°C/h	140	°C	ISO 306
Heat deflection temperature, 0.45 MPa	130	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	45	°C	ISO 75-1/-2
Melting temperature, 10°C/min	181	°C	ISO 11357-1/-3

ARKEMA

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ELECTRICAL PROPERTIES

PROPERTIES	DRY / COND VALUE*	UNIT	TEST STANDARD
Surface resistivity, 23°C (73°F)	- / 5.0E+11	Ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / 1.0E+9	Ohm.m	IEC 62631-3-1
Dielectric stress, 23°C (73°F)	- / 23	kV/mm	IEC 60243-1
Relative permittivity, 100Hz	- / 9		IEC 62631-2-1
Relative permittivity, 1Mhz	- / 4		IEC 62631-2-1
Dissipation factor, 100Hz	- / 2440	E-4	IEC 62631-2-1
Dissipation factor, 1Mhz	- / 2440	E-4	IEC 62631-2-1
Comparative tracking index, 23°C (73°F)	- / 600		IEC 60112

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

OTHER PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Bio-based carbon content, Measured	89	%	ASTM D6866
Water absorption, 23°C (73°F), immersion, equilibrium	1.6	%	ISO 62
Specific gravity, 23°C (73°F)	1.04	g/cm³	ISO 1183-1

PACKAGING

Available packaging:
- 20 kg / 44 lb bags
- 25 kg / 55 lb bags
- 454 kg / 1000 lb rigid containers
- 550 kg rigid containers

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: 230°C / 250°C / 270°C (445°F / 480°F / 520°F)
- Typical mold temperature - Injection molding: 20-60°C (70-140°F)
- Drying time and temperature: 80-90°C (175-195°F) / 4-6 hours

SPECIAL CHARACTERISTICS

- Bio-based
- Low oligomers

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DIAGRAMS