

TECHNICAL DATA SHEET
RILSAN® BESNO TL NB

POLYAMIDE 11 PELLET

RILSAN® BESNO TL NB is a polyamide 11 compound. It is produced from a renewable & sustainable source (castor oil). This natural grade is designed for tube extrusion and does not contain any optical brightener.

Designation : ISO 16396 - PA11, EG1HL, C22-010

TYPE

PA11

MAIN APPLICATIONS

- 동계 스포츠 - 스키
- 호스 및 튜브류

배송 방식

- 펠릿

가공 공정

- 압출 - 일반
- 시트 압출
- 튜브 압출

첨가제

- 열 안정화
- 빛 안정제

RHEOLOGICAL PROPERTIES

속성	값	UNIT	테스트 표준
Melt volume flow rate (MVR), 235°C / 2.16 kg (455°F / 4.4 lb)	1	cm³/10min	ISO 1133

MECHANICAL PROPERTIES

속성	DRY / COND VALUE*	UNIT	테스트 표준
Flexural modulus, 23°C (73°F)	- / 1085	MPa	ISO 178
Tensile modulus, 23°C (73°F), 1 mm/min	- / 1280	MPa	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	- / 5	%	ISO 527-1/-2
Yield stress, 23°C (73°F), 50 mm/min	- / 38	MPa	ISO 527-1/-2
Nominal strain at break, 23°C (73°F), 50 mm/min	- / > 50	%	ISO 527-1/-2
Hardness, Shore D, 15 s	- / 72		ISO 868
Charpy notched impact strength, 23°C (73°F)	- / 11	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	- / 12	kJ/m2	ISO 179 1eA
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

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

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속성	값	UNIT	테스트 표준
Vicat softening temperature, 50N at 50°C/h	160	°C	ISO 306
Heat deflection temperature, 0.45 MPa	145	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	50	°C	ISO 75-1/-2
Melting temperature, 10°C/min	186	°C	ISO 11357-1/-3

THERMAL PROPERTIES ELECTRICAL PROPERTIES

속성	DRY / COND VALUE*	UNIT	테스트 표준
Surface resistivity, 23°C (73°F)	- / 1.0E+14	ohm/sq	IEC 62631-3-2
Volumic (transversal) resistivity, 23°C (73°F)	- / 1.0E+12	ohm/m	IEC 62631-3-1
Relative permittivity, 100Hz	3 / -		
Relative permittivity, 1Mhz	3 / -		
Dissipation factor, 100Hz	308 / -	E-4	
Dissipation factor, 1Mhz	183 / -	E-4	
Comparative tracking index, 23°C (73°F)	- / 600		IEC 60112
Dielectric Strength, 23°C (73°F)	- / 30	kV/mm	IEC 60243-1

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

OTHER PROPERTIES

속성	값	UNIT	테스트 표준
Water absorption, 23°C (73°F), immersion, equilibrium	1.9	%	ISO 62
Bio-based carbon content, Measured	99	%	
Specific gravity, 23°C (73°F)	1.02	g/cm³	ISO 1183-1

포장

Available packaging:

- 20 kg / 44 lb 가방
- 25 kg / 55 lb 가방
- 550 kg 강화된 용기

보관수명

납품일로부터 2년 후, 적절히 보관될 때 (밀봉 봉지, 적절한 습도, 자외선 차단 및 온도). 이 한도를 초과하는 모든 사용에 대해서는 기술 서비스팀에 문의하십시오.

PROCESSING CONDITIONS:

- 일반적인 용융 온도(최소/권장/최대) - 사출 성형: 230°C / 250°C / 270°C (445°F / 480°F / 520°F)
- 일반적인 금형 온도 - 사출 성형: 20-60°C (70-140°F)
- 건조 시간 및 온도: 80-90°C (175-195°F) / 4-6 시간

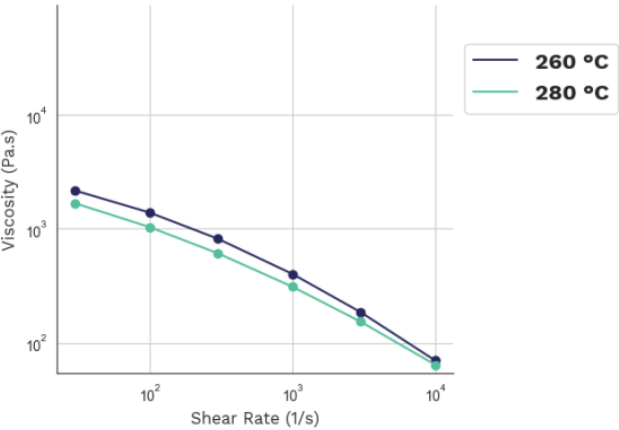
특징

- 생물 기반
- 낮은 올리고머

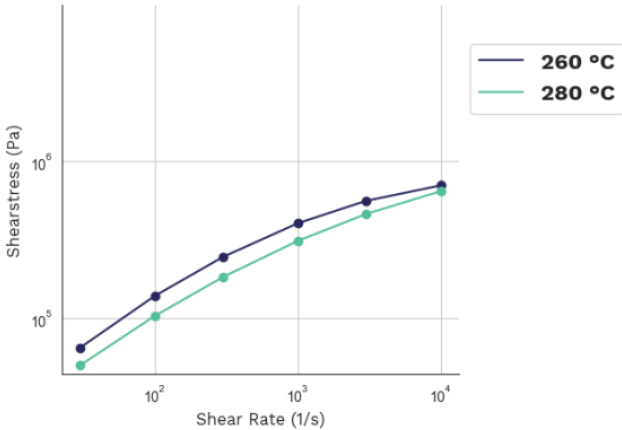
RILSAN® BESNO TL NB

DIAGRAMS

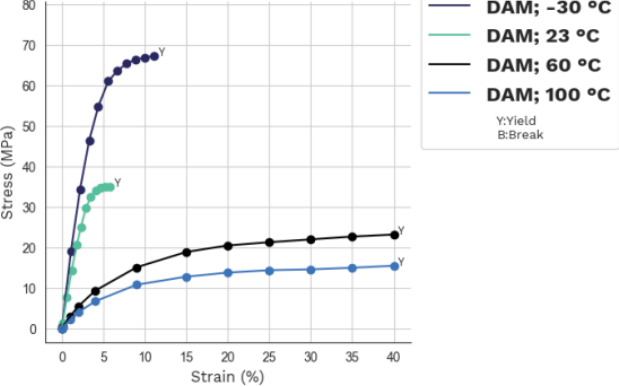
Viscosity-shear rate
Rilsan® BESNO TL NB



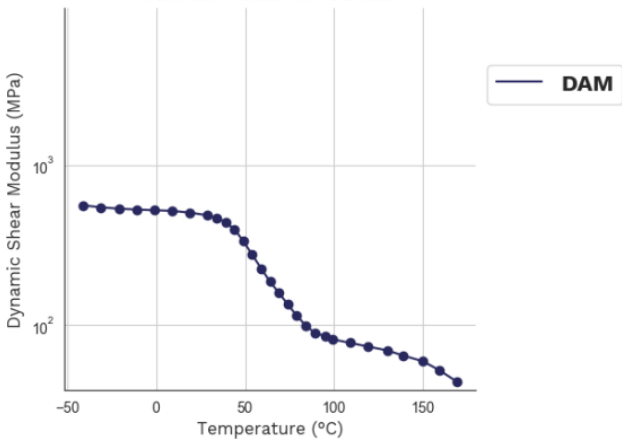
Shearstress-shear rate
Rilsan® BESNO TL NB



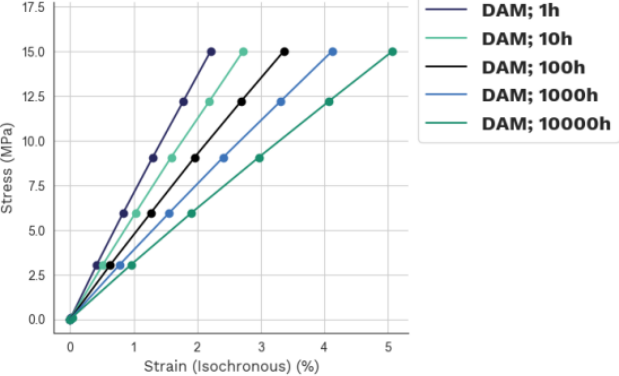
Stress-strain
Rilsan® BESNO TL NB



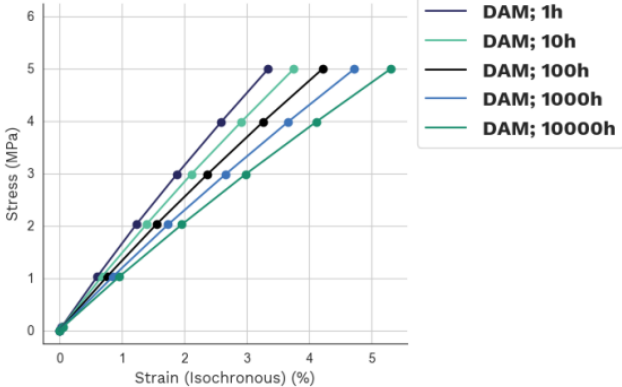
Dynamic Shear modulus-temperature
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Stress-strain (Isochronous) 23 °C
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Stress-strain (Isochronous) 80 °C
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