

# Rilsan® BMN TLD Nylon 11 Rod

**Grade:** Rilsan® BMN TLD

**Formula:** PA 11

**Diameter:** 55mm

**Length:** 100mm

**Colour:** Black

**CAS Number:** 25035-04-5

**UOM Code:** 465-696-84

**SKU:** 1000028614-group

**Product Code:** AM33-RD-000130

## Material Properties for Polymers

### Chemical Resistance

Element	Value
Acids - concentrated	Poor
Acids - dilute	Fair-Poor
Alcohols	Fair
Alkalis	Good-Fair
Aromatic hydrocarbons	Good
Greases and Oils	Good
Halogenated Hydrocarbons	Good-Poor
Halogens	Poor
Ketones	Good-Fair

### Mechanical Properties

Element	Value
Coefficient of friction	0.2-0.3
Hardness - Rockwell	M60
Elongation at break( % )	320
Tensile modulus( GPa )	1.5
Izod impact strength( J m <sup>21</sup> )	96
Tensile strength( MPa )	44

## Electrical Properties

Element	Value
Dielectric constant @ 1MHz	3
Dissipation factor @ 1kHz	0.05
Dielectric strength( kV mm <sup>-1</sup> )	20
Surface resistivity( Ohm/sq )	10 <sup>12</sup>
Volume resistivity( Ohmcm )	10 <sup>12</sup>

## Physical Properties

Element	Value
Flammability	V2
Radiation resistance	Fair
Resistance to Ultra-violet	Fair?
Limiting oxygen index( % )	22
Water absorption - equilibrium( % )	2.5
Water absorption - over 24 hours( % )	0.8
Density( gcm <sup>-3</sup> )	1.04

## Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa( C )	150
Heat-deflection temperature - 1.8MPa( C )	55
Lower working temperature( C )	-50
Upper working temperature( C )	70-130
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	0.3@23°C
Coefficient of thermal expansion( x10 <sup>-5</sup> K <sup>-1</sup> )	125