

Rilsan® AESN TL

Polyamide 12

Arkema

Message:

Rilsan® AESN TL is a Polyamide 12 (Nylon 12) product. It can be processed by extrusion, film extrusion, injection molding, profile extrusion, or sheet extrusion and is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Typical application: Automotive.

Characteristics include:

Good UV Resistance

Heat Stabilizer

Lubricated

General Information				
Additive		Heat Stabilizer		
		Lubricant		
Features		Good UV Resistance		
		Heat Stabilized		
		Lubricated		
Forms		Pellets		
Processing Method		Extrusion		
		Film Extrusion		
		Injection Molding		
		Profile Extrusion		
		Sheet Extrusion		
Multi-Point Data		Isothermal Stress vs. Strain (ISO 11403-1)		
		Secant Modulus vs. Strain (ISO 11403-1)		
		Shear Modulus vs. Temperature (ISO 11403-1)		
		Viscosity vs. Shear Rate (ISO 11403-2)		
Physical	Dry	Conditioned	Unit	Test Method
Density	1010	1010	kg/m ³	ISO 1183 ¹
Melt volume-flow rate (235°C/2.16 kg)	2.50	--	cm ³ /10min	ISO 1133 ²
Water Absorption (Saturation)	1.6	--	%	ISO 62 ³
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile modulus	1260	1050	MPa	ISO 527-2 ⁴
Tensile Stress (Yield)	40.0	35.0	MPa	ISO 527-2 ⁵
Tensile Strain (Yield)	5.0	8.0	%	ISO 527-2 ⁶
Nominal strain at break	> 50	> 50	%	ISO 527-2 ⁷

Impact	Dry	Conditioned	Unit	Test Method
Charpy notched impact strength				ISO 179/1eA ⁸
-30°C	--	8.00	kJ/m ²	
23°C	--	15.0	kJ/m ²	
Charpy impact strength				ISO 179/1eU ⁹
-30°C	--	No Break		
23°C	--	No Break		
Puncture energy (-30°C)	--	60.0	J	ISO 6603-2 ¹⁰
Puncture - maximum force (-30°C)	--	4800	N	ISO 6603-2 ¹¹
Thermal	Dry	Conditioned	Unit	Test Method
Deflection Temperature Under Load				ISO 75-2 ¹²
0.45 MPa	135	--	°C	
1.8 MPa	55.0	--	°C	
Vicat Softening Temperature (50°C/h, B (50N))	142	--	°C	ISO 306 ¹³
Melting Temperature ¹⁴	178	--	°C	ISO 11357-3 ¹⁵
CLTE - Flow	1.0E-4	--	cm/cm/°C	ISO 11359-2 ¹⁶
Electrical	Dry	Conditioned	Unit	Test Method
Surface resistivity	--	1.0E+14	ohms	IEC 60093 ¹⁷
Volume resistivity	--	1.0E+12	ohms·m	IEC 60093 ¹⁸
Electric strength	--	30	kV/mm	IEC 60243-1 ¹⁹
Comparative tracking index	--	600		IEC 60112 ²⁰
Flammability	Dry	Conditioned	Unit	Test Method
Burning Behav. at 1.6mm nom. thickn. (1.60 mm)	HB	--		ISO 1210 ²¹
Burning Behav. at thickness h (3.20 mm)	V-2	--		ISO 1210 ²²
Oxygen index	22	--	%	ISO 4589-2 ²³

NOTE

1. Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

2. Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

3. Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

4. Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

5. Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

6.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
8.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
9.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
11.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
14.	10 °C/min
15.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
16.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
17.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
18.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
19.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
20.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
21.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
22.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
23.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519
Phone: +86 13424755533
Email: sales@su-jiao.com
No. 215, Lianhe North Road, Fengxian District, Shanghai, China

