

NANCAR® 1031

Acrylonitrile Butadiene Rubber

Nantex Industry Co., Ltd.

Message:

NANCAR® 1031 is a high acrylonitrile butadiene copolymer with excellent oil, fuel, grease, water and steam resistance. It is polymerized at low temperature and contains sufficient antioxidant for normal aging conditions.

NANCAR® 1031 is recommended for use in high oil resistant rubber parts with low metal corrosion and high water resistance.

General Information			
Additive	Antioxidant		
Features	Antioxidant		
	Copolymer		
	Fuel Resistant		
	Good Corrosion Resistance		
	Grease Resistant		
	Low to No Water Absorption		
	Oil Resistant		
	Steam Resistant		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.998	g/cm ³	
Mooney Viscosity			ASTM D1646
ML 1+4, 100°C ¹	79	MU	
ML 1+4, 100°C	63	MU	
Acrylonitrile Content - Bound	41.0	%	Internal Method
Solubility - in MEK	100	%	
Stabilizer	Non-staining		
Viscosity			ASTM D1646
Minimum	46.0		
Minutes to 35 points rise, t35	43.6	min	
Minutes to 5 points rise, t5	33.7	min	
Heat Loss	0.40	%	ASTM D5688
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shore A, 5 sec ²	77		
Shore A, 5 sec ³	76		
Shore A, 5 sec ⁴	75		
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412

300% Strain ⁵	12.3	MPa	
300% Strain ⁶	10.7	MPa	
300% Strain ⁷	7.94	MPa	
Tensile Strength			ASTM D412
Yield ⁸	26.9	MPa	
Yield ⁹	26.3	MPa	
Yield ¹⁰	24.4	MPa	
Tensile Elongation			ASTM D412
Break ¹¹	580	%	
Break ¹²	630	%	
Break ¹³	770	%	
Tear Strength	65.7	kN/m	ASTM D624
Compression Set ¹⁴ (100°C, 70 hr)	74	%	ASTM D395
Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air ¹⁵ (100°C, 70 hr)	1.0	%	ASTM D573
Change in Ultimate Elongation in Air ¹⁶ (100°C, 70 hr)	-30	%	ASTM D573
Change in Durometer Hardness in Air ¹⁷ (Shore A, 100°C, 70 hr)	5.0		ASTM D573
Change in Tensile Strength ¹⁸			ASTM D471
100°C, 70 hr, in ASTM #1 Oil	3.0	%	
100°C, 70 hr, in IRM 903 Oil	-5.0	%	
Change in Ultimate Elongation ¹⁹			ASTM D471
100°C, 70 hr, in ASTM #1 Oil	-27	%	
100°C, 70 hr, in IRM 903 Oil	-18	%	
Change in Durometer Hardness ²⁰			ASTM D471
Shore A, 100°C, 70 hr, in ASTM #1 Oil	4.0		
Shore A, 100°C, 70 hr, in IRM 903 Oil	-6.0		
Change in Volume ²¹			ASTM D471
100°C, 70 hr, in ASTM Oil #1	-0.30	%	
100°C, 70 hr, in IRM 903 Oil	11	%	
NOTE			
1.	Uncured		
2.	CURED @150°C for 60 mins		
3.	CURED @150°C for 40 mins		
4.	CURED @150°C for 20 mins		
5.	CURED @150°C for 60 mins		
6.	CURED @150°C for 40 mins		
7.	CURED @150°C for 20 mins		
8.	CURED @150°C for 60 mins		
9.	CURED @150°C for 40 mins		
10.	CURED @150°C for 20 mins		

11.	CURED @150°C for 60 mins
12.	CURED @150°C for 40 mins
13.	CURED @150°C for 20 mins
14.	CURED @150°C for 60 mins
15.	CURED@150°C × 40 MINUTES
16.	CURED@150°C × 40 MINUTES
17.	CURED@150°C × 40 MINUTES
18.	CURED@150°C × 40 MINUTES
19.	CURED@150°C × 40 MINUTES
20.	CURED@150°C × 40 MINUTES
21.	CURED@150°C × 40 MINUTES

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

