Viton® B-303C

Fluoroelastomer

The Chemours Company

Message:

Viton® B-303C is a precompound containing an improved 69%F 'B' type fluoroelastomer. This precompound incorporates a bisphenol cure system that can be optionally compounded with peroxide and coagent for 'dual curing'. Viton® B-303C offers a unique combination of processing and cured characteristics including:
high quality, smooth extrudate surface and appearance at thickness below .040" or 1.0mm
excellent 'green' strength that helps maintain extrudate shape as well as enabling draw down to very thin veneer thicknesses
excellent fuel permeation resistance
good tensile strength
good adhesion to other elastomers in multi layer hoses
Viton® B-303C is especially attractive for use in the manufacture of low permeation fuel and filler neck hose for automotive and small engine applications. It also works well for any hose requiring a thin FKM layer. This product is superior in extrusion processability compared to many other types of Viton®, including Viton® B-202, B-600 blends and VTR-7419
When used at a 1 to 1.5 phr level, Carnauba wax and VPA 2 process aids each create a smooth finish and result in good metal release. Combinations of these process aids with Struktol® WS280 can provide other desirable characteristics to some compounds. Viton® B-303C is not suggested for use in applications above 250°C. The heat resistance of B-303C can be maximized by the use of a dual cure system of TAIC and peroxide in conjunction with the incorporated bisphenol cure. See compound A40-06 in Table I for a dual cure example.

General Information			
Features	Workability, good Good adhesion Fuel resistance Excellent appearance		
Uses	Pipe Pipe fittings Application in Automobile Field		
Appearance	White-like		
Forms	Sheet		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.86	g/cm³	ASTM D792
Mooney Viscosity (ML 1+10, 121°C)	30	MU	ASTM D1646
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shao A, 23°C	74		ASTM D2240
Shao A, 23°C [1]	66		ASTM D2240
Shao A, 23°C [2]	76		ASTM D2240
Elastomers	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress (10% Strain)			ASTM D412
23°C [3]	1.20	MPa	ASTM D412
23°C [4]	1.50	MPa	ASTM D412

Tensile Stress (25% Strain) (23°C) [5]	1.90	MPa	ASTM D412
Tensile Stress			ASTM D412
100% strain, 23°C [6]	3.50	MPa	ASTM D412
100% strain, 23°C [7]	2.50	MPa	ASTM D412
100% strain, 23°C [8]	4.70	MPa	ASTM D412
Tensile Strength			ASTM D412
Yield, 23°C [9]	7.90	MPa	ASTM D412
Yield, 23°C [10]	7.30	MPa	ASTM D412
Yield, 23°C [11]	11.0	MPa	ASTM D412
Tensile Elongation			ASTM D412
Fracture, 23°C [12]	360	%	ASTM D412
Fracture, 23°C [13]	400	%	ASTM D412
Fracture, 23°C [14]	260	%	ASTM D412
Compression Set			ASTM D395B
70°C, 70 hr	34	%	ASTM D395B
150°C, 70 hr	80	%	ASTM D395B
150°C, 70 hr [15]	25	%	ASTM D395B
200°C, 70 hr [16]	33	%	ASTM D395B

Aging	Nominal Value	Unit	Test Method
Change in Volume			ASTM D471
23°C, 168 hr, Class C Standard Fuel	3.0	%	ASTM D471
23°C, 168 hr, in M15 (Fuel C/Methanol 85/15)	14	%	ASTM D471

NOTE	
1.	Aging E10 (Fuel C/Ethanol 90/10) 23 hr at 168°C
2.	Aging 16 hr at 232°C
3.	508 mm/min
4.	508 mm/min, Aged 16 hr at 232°C
5.	508 mm/min
6.	510 mm/min
7.	510 mm/min, aging E10 (Fuel C/Ethanol 90/10) 23 hr at 168°C
8.	510 mm/min, aging 16 hr at 232°C
9.	510 mm/min
10.	510 mm/min, aging E10 (Fuel C/Ethanol 90/10) 23 hr at 168°C
11.	510 mm/min, aging 16 hr at 232°C
12.	510 mm/min
13.	510 mm/min, aging E10 (Fuel C/Ethanol 90/10) 23 hr at 168°C
14.	510 mm/min, aging 16 hr at 232°C
15.	Postcured at 16 hr at 232°C
16.	Postcured at 16 hr at 232°C

Recommended distributors for this material

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