

Viton® A-275C

Fluoroelastomer
DuPont Performance Elastomers

Message:

Viton A-275C is a nominal 20 ML, curativecontaining precompound formulated specifically for optimized performance in injection molding operations. The polymer rheology and cure rate are designed to provide the best possible mold flow and filling characteristics, while maintaining economically fast overall cycle times. In injection molding applications, compounds based on Viton A-275C will provide improved mold flow, better mold release, and superior flash strength, compared to other grades of Viton, such as A-201C or A-401C.

Viton A-275C features:

- Incorporated bisphenol cure system
- Viscosity, rheology, and cure/scorch optimized for injection molding
- Excellent scorch safety
- Excellent mold release
- Excellent compression set resistance

Applications:

- Injection molding of O-rings, gaskets, and other sealing devices
- Can be formulated to meet FKM specifications MIL-R-83248C and AMS 7276E

General Information			
Features	Low compressive deformability		
	Fast molding cycle		
	Good demoulding performance		
Uses	Washer		
	Seals		
Appearance	White		
Forms	Sheet		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.82	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore A)	71		ASTM D2240
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	4.50	MPa	ASTM D412
Tensile Strength (Break)	13.4	MPa	ASTM D412
Tensile Elongation (Break)	220	%	ASTM D412
Compression Set			ASTM D395B
23°C, 70 hr	11	%	ASTM D395B
200°C, 70 hr	18	%	ASTM D395B
200°C, 168 hr	24	%	ASTM D395B
200°C, 336 hr	34	%	ASTM D395B
232°C, 70 hr	36	%	ASTM D395B

Aging	Nominal Value	Unit	Test Method
Change in Tensile Strength in Air			ASTM D573
200°C, 70 hr	0.0	%	ASTM D573
100% strain, 200°C, 70 hr	2.2	%	ASTM D573
232°C, 70 hr	4.3	%	ASTM D573
100% strain, 232°C, 70 hr	0.0	%	ASTM D573
275°C, 70 hr	-30	%	ASTM D573
100% strain, 275°C, 70 hr	-41	%	ASTM D573
Change in Ultimate Elongation in Air			ASTM D573
200°C, 70 hr	10	%	ASTM D573
232°C, 70 hr	4.3	%	ASTM D573
275°C, 70 hr	25	%	ASTM D573
Change in Durometer Hardness in Air			ASTM D573
Support a, 200°C, 70 hr	1.0		ASTM D573
Support a, 232°C, 70 hr	1.0		ASTM D573
Support a, 275°C, 70 hr	2.0		ASTM D573
Change in Tensile Strength			ASTM D471
23°C, 70 hr, in reference fuel C	-17	%	ASTM D471
100% strain, 23°C, 70 hr, in reference fuel c	-18	%	ASTM D471
150°C, 168 hr, in IRM 903 oil	-5.5	%	ASTM D471
100% strain, 150°C, 168 hr, in IRM 903 oil	-4.7	%	ASTM D471
175°C, 70 hr, in AMS3021	-37	%	ASTM D471
100% strain, 175°C, 70 hr, in AMS3021	-29	%	ASTM D471
Change in Ultimate Elongation			ASTM D471
23°C, 70 hr, in reference fuel C	15	%	ASTM D471
150°C, 168 hr, in IRM 903 oil	15	%	ASTM D471
175°C, 70 hr, in AMS3021	4.4	%	ASTM D471
Change in Durometer Hardness			ASTM D471
Support A, 23°C, 70 hr, in reference fuel C	-1.0		ASTM D471
Support A, 150°C, 168 hr, in IRM 903 oil	-1.0		ASTM D471
Support A, 175°C, 70 hr, in AMS3021	-8.0		ASTM D471
Change in Volume			ASTM D471
23°C, 70 hr, Class C Standard Fuel	2.2	%	ASTM D471
150°C, 168 hr, in IRM 903 oil	1.8	%	ASTM D471
175°C, 70 hr, in AMS3021	15	%	ASTM D471

Additional Information

ODR at 177°C, Microdie, 3° Arc, 12 min motor:Minimum Torque, ML: 8.7 in-lbScorch Time, ts2: 2.7 minMaximum Torque, MH: 94.2 in-lbOptimum Cure Time, tc90: 4.9 minMDR at 177°C, Microdie, 3° Arc, 12 min motor:Minimum Torque, ML: 0.79 in-lbScorch Time, ts2: 1.39 minMaximum Torque, MH: 17.75 in-lbOptimum Cure Time, tc90: 2.56 min

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