

## Material Properties: V123 (FKM)

ASTM D2000 / SAE J200 M7HK 710 A1-10 B38 EF31 Z1 Z2 Z3

Z1 - Original Hardness, Shore A, ASTM D2240 75±5

Z2 - TR-10 temperature, ASTM D1329, -20°C or colder

Z3 - % Volume Change after Immersion in 100% Methanol = 0 to +15

Original Properties (710 Z1)	Specification	V123
Hardness, Shore A, ASTM D2240 (Z1 - 75±5)	75±5	76
Tensile Strength, MPa, ASTM D412 Die C	10.0 min.	18.6
Tensile Strength, psi, ASTM D412 Die C	1450 min.	2701
Ultimate Elongation, %, ASTM D412 Die C	175 min.	228
<b>Temperature Retraction, ASTM D1329 (Z2)</b>		
TR-10, degrees C	-20 or colder	-23.8
<b>Air Aging ASTM D573, 70 hrs. at 250°C (A1-10)</b>		
Hardness change, Shore A, ASTM D2240	+10 max.	0
% Tensile Strength change, ASTM D412 Die C	-25 max.	-11
% Elongation change, ASTM D412 Die C	-25 max.	+21
<b>Compression Set, ASTM D395 Method B, 22 hrs. at 200°C, Plied discs (B38)</b>		
% Permanent set	20 max.	12.1
<b>ASTM Reference Fuel C Immersion, ASTM D471, 70 hrs. at 23°C (EF31)</b>		
Hardness change, Shore A, ASTM D2240	±5	-1
% Tensile Strength change, ASTM D412 Die C	-25 max.	+5
% Elongation change, ASTM D412 Die C	-20 max.	-6
% Volume change, ASTM D471	0 to +10	+1.8
<b>100% Methanol Immersion, ASTM D471, 70 hrs. at 23°C (Z3)</b>		
% Volume change, ASTM D471	0 to +15	+5

UL listed for service as follows (UL 157 JMLU2, File MH16378):

Temperature Range = -40°C to 105°C in:

Gasoline	Gasoline/Alcohol blends
Naphtha or Kerosene	Manufactured gas or Natural gas
Diesel fuel, fuel oil or lubricating oil	Liquified Petroleum Gas (LP-Gas)
Suitable for gasoline alcohol blends with a full concentration range for ethanol and methanol	
Suitable for 0-20 percent MTBE/Gasoline blends	Suitable for 0-20 percent ETBE/Gasoline blends
Suitable for 0-20 percent TAME/Gasoline blends	

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Pub#2535  
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