

## MATERIAL PROPERTY DATA SHEET BROWN FLUOROELASTOMER (FKM)

### GENERAL PROPERTIES

Fluorocarbon (FKM) materials utilize the best ingredient formulations from leading industry suppliers including Chemours (Viton®), Solvay, and Daikin. Temperature range of -10F to +480F and can withstand exposure to +600F for brief periods of time. Meeting FDA CFR 21 177.2600 and 3A Sanitary Standards, this compound is suitable for use in food and dairy applications. The relatively high level of fluorine allows for exceptional resistance to weather, compression set and chemical attack over wide variety of fluids.

<u>ASTM</u> <u>D2000</u>	<u>PHYSICAL PROPERTIES</u>	<u>REQUIREMENTS</u>	<u>TYPICAL</u> <u>RESULTS</u>
HK	<u>ORIGINAL PROPERTIES</u>		
Z1	Durometer, Shore A, D2240, pts	75+/-5	75
	Tensile, D412, MPa (psi), Minimum	10 (1450)	12.47 (1808)
	Elongation, D412, % Minimum	150	208
	Specific Gravity, g/cm <sup>3</sup>	-	2.03
	Color	-	Brown
A1-10	<u>HEAT AGE, D573, 70 HRS @ 250°C</u>		
	Durometer Change, Points	+10	+2
	Tensile Strength Change, % Maximum	-25	+16
	Elongation Change, % Maximum	-25	-18
B38	<u>COMPRESSION SET, METHOD B, 22 HRS @ 200°C</u>		
	Deflection, % Maximum	15	13.1
C12	<u>RESISTANCE TO OZONE, METHOD D1171</u>		
	Method B	No Cracks	Pass
C20	<u>RESISTANCE TO OUTDOOR AGING, D1171</u>		
	Quality retention rating, % Minimum	No Cracks	Pass
EF31	<u>FUEL C RESISTANCE, 70 HRS @ 23°C</u>		
	Durometer Change, Points	+/-5	-2
	Tensile Change, % Maximum	-25	-14
	Elongation Change, % Maximum	-20	-9
	Volume Change, %	+10 / -0	+3.4
EO88	<u>FLUID RESISTANCE, D471, HATCO 7700, 70 HRS @ 200°C</u>		
	Durometer Change, Points	+5 / -15	-9
	Tensile Change, % Maximum	-40	-14
	Elongation Change, % Maximum	-20	-15

	Volume Change, %	+25	+14.7
	<u>FLUID RESISTANCE, D471, IRM 903 OIL, 70 HRS @ 150°C</u>		
	Volume Change, %	+10	+2
Z2	<u>LOW TEMPERATURE RETRACTION</u>		
	TR10, Degrees °C	-15	-16.4

#### **SPECIFICATIONS MET**

ASTM D2000 M6HK 810 A1-10 B38 C12 C20 EF31 EO88

REACH SVHC 219

RoHS 2015/863

California Proposition 65\*

Dodd-Frank Consumer Protection Act: No conflict materials (Tantalum, Tin, Tungsten & Gold)

FDA 21 CFR 177.2600

\*This compound may contain trace amounts of these impurities included in California Prop 65:

Benz[a]anthracene 56-55-3

Benzo[b]fluoranthene 205-99-2

Benzo[j]fluoranthene 205-82-3

Benzo[k]fluoranthene 207-08-9

Benzo[a]pyrene 50-32-8

Chrysene 218-01-9

Dibenz[a,h]anthracene 53-70-3

Naphthalene 91-20-3

Titanium dioxide 13463-67-7