

# The O-Ring Store LLC

## We make getting o-rings easy!

# DATA SHEET FOR COMPOUND E70 : EPDM 70 DUROMETER SULFUR CURED

Standard EPDMs are usually sulfur-cured. Sulfur-cured compounds offer better flexible properties but are more prone to hardening and have an inferior compression set with high temperature.

Ethylene propylene rubber is an elastomer prepared from ethylene and propylene monomers (ethylene propylene copolymer). Our stock O-Ring compound are made with an amount of a third (diene) monomer (ethylene propylene diene terpolymers). Ethylenepropylene-diene rubber (EPDM) produced using a third monomer and is particularly useful when sealing phosphate-ester hydraulic fluids and in brake systems that use fluids having a glycol base. EPDM has outstanding resistance to heat, water and steam, alkali, mild acidic and oxygenated solvents, ozone, and

### COMPOUND FEATURES

- FDA compliant per CFR 177.2600.
  - Excellent UV and ozone resistance.
  - Excellent resistance to hot water and steam (up to 400°F/204°C)
  - Excellent low temperature flexibility.
  - Resistance to ethylene glycol fluids.
  - Sulfur curing offers better tear and abrasion resistance than peroxide cured EPDM.
  - Good low temperature flexibility.
  - Excellent resistance to automotive and aircraft brake fluids.
- Poor resistance to petroleum based products

### TEMPERATURE RANGE

-65°F to +300°F (-53.9°C to +148.9°C)

### CURE SYSTEM

Sulfur

### ASTM CALLOUT

ASTM D2000 Grade M5CA710A25 B35 C32 EA14 F17 G21

### RECOMMENDED SHELF LIFE:

Unlimited

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ORIGINAL PROPERTIES					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
DUROMETER	-	-	SHORE A	70 ± 5	71
TENSILE STRENGTH			PSI (MPA)	1450 (10) MIN.	2140 (14.8)
ELONGATION RESISTANCE			%	200 MIN.	310
SPECIFIC GRAVITY			-	-	1.17

HEAT AGE					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
DUROMETER CHANGE	A25	70 HOURS @ 125° C	SHORE A	+10	+4
TENSILE STRENGTH CHANGE			%	-20	-3
ELONGATION RESISTANCE CHANGE			%	-40	-16

COMPRESSION SET					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
ORIGINAL DEFLECTION	B35	22 HOURS @ 100° C	%	50 MAX	42

RESISTANCE TO OZONE					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
TEST RESULTS	C32	ASTM D1171 METHOD B	PASS/FAIL	NO CRACKS	PASS

FUEL A RESISTANCE					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
CHANGE IN VOLUME	EA14	70 HOURS @ 100° C	%	±5	+1.6

LOW TEMPERATURE BRITTLINESS					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
TEST RESULTS	F17	ASTM D2137 METHOD A, 9.3.2 3 MINUTES @ -40° C	PASS/FAIL	NON-BRITTLE	PASS

Information within is believed to be accurate and reliable. However, The O-Ring Store, LLC makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate the material prior to use.

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LOW TEMPERATURE RETRACTION					
PROPERTIES	ASTM DESIGNATION	TEST METHOD	UNIT OF MEASURE	ASTM D2000 SPECIFICATION	B70 COMPOUND PROPERTY
TEST RESULTS	G21	ASTM D624 DIE C	MIN KN/M	26	38

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