Request a Quote

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Marco Compound # E1097

70 Durometer, Black, FDA, NSF61, 3A, Chloramine Resistant EPDM

Technical Datasheet

Common Names:
Ethylene-Propylene (EP, EPDM)

General Description:
EPDM rubber (ethylene propylene diene monomer rubber) is an elastomer which is characterized by wide range of applications and good chemical resistance.

Features:

- FDA, NSF61, and 3A Sanitary compliant
- Chloramine resistant
- Good heat and compression resistance.
- Resistant to ketones, hot and cold water, steam, alkalis, polar solvents, ozone, sunlight, alcohols, glycol engine coolant and Skydrol (phosphate ester hydraulic fluid).

Limitations:

- Not recommended for oils, gasoline, kerosene, aromatic and aliphatic hydrocarbon, halogenated solvents, concentrated acids, non-polar solvents, petroleum oils and aromatic fuels.

Cure System:

- **Peroxide**

Service Temperature:
-65 to 300° F (-54 to 150° C)

Specification:
ASTM D2000 M4CA710 A25 B35 EA14 F17

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	D2000 Specification Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	72
Color	Black	Black
Tensile Strength, MPa (psi)	10.0 (1,450)	15.30 (2,200)
Ultimate Elongation, % - (Z1)	125	190
Modulus at 100% elongation, psi - (Z2)	Report	807
Specific Gravity – (Z3)	Report	1.12

HEAT AGING – A25, ASTM D 865 (70 hrs. @ 125°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points, max.	10	+2
Tensile Strength Change, %, max.	-20	-2
Ultimate Elongation Change, %, max.	-40	-11

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COMPRESSION SET – B35, ASTM D 395 Method B (22 hrs. @ 125°C)	**D2000 Specification Requirements**	**Typical Test Results**
Permanent Set, %, max.	70	11

FLUID RESISTENCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	**D2000 Specification Requirements**	**Typical Test Results**
Volume Change, %	+/- 5	0.4

LOW TEMPERATURE RESISTANCE – F17, ASTM D 2137	**D2000 Specification Requirements**	**Typical Test Results**
(Non-brittle after 3 min. @ -40°C)	Pass	Pass

TEAR RESISTANCE – G21, D624	**D2000 Specification Requirements**	**Typical Test Results**
Die C, Kgf/cm		24

FLUID AGED, Chloramine (100 ppm) – D471, (1344 hrs. @ 60°C)	**D2000 Specification Requirements**	**Typical Test Results**
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	+12
Ultimate Elongation Change, %, max.	Report	+8
Volume Change, %	Report	+2.7

FLUID AGED, Chloramine (100 ppm) –D471, (1344 hrs. @ 80°C)	**D2000 Specification Requirements**	**Typical Test Results**
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	+8
Ultimate Elongation Change, %, max.	Report	+7
Volume Change, %	Report	+2

FLUID AGED, Chloramine – D471, (24 hrs. @ 70°C)	**D2000 Specification Requirements**	**Typical Test Results**
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	+3
Ultimate Elongation Change, %, max.	Report	+0.4
Volume Change, %	Report	+0.7

FLUID AGED, Chloramine – D471, (672 hrs. @ 70°C)	**D2000 Specification Requirements**	**Typical Test Results**
Hardness Change, points	Report	-1
Tensile Strength Change, %	Report	+6
Ultimate Elongation Change, %, max.	Report	
Volume Change, %	Report	

FLUID AGED, Tap Water – D471, (24 hrs. @ 100°C)	**D2000 Specification Requirements**	**Typical Test Results**
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	+7
Ultimate Elongation Change, %, max.	Report	+1.2
Volume Change, %	Report	+1.1

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FLUID AGED, Tap Water –D471, (672 hrs. @ 100°C)	**D2000 Specification Requirements**	**Typical Test Results**
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	-3
Ultimate Elongation Change, %, max.	Report	+1.6
Volume Change, %	Report	+1.4