

Marco Compound # E1000

70 Durometer, Black, FDA and NSF61 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 21 CFR 177.2600 Compliant for Food Contact applications
- NSF61 Certified for Drinking Water applications
- 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 C32 EA14 F19 G21

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	D2000 Specification Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	74
Color	Black	Black
Tensile Strength, MPa (psi)	10.0 (1,450)	12.8 (1,850)
Ultimate Elongation, %	150	210
Modulus at 100% elongation, psi	Report	800
Specific Gravity	Report	1.15

This information is to the best of our knowledge accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It's the customer's responsibility to evaluate parts prior to use.

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	+7
Ultimate Elongation Change, %, max.	-40	-8

COMPRESSION SET – B35, ASTM D 395 Method B (22 hrs. @ 125°C)	D2000 Specification Requirements	Typical Test Results
Permanent Set, %, max.	70	13

OZONE RESISTANCE – C32, ASTM D 1171 Method B	D2000 Specification Requirements	Typical Test Results
No Crack	Pass	Pass

FLUID RESISTENCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	D2000 Specification Requirements	Typical Test Results
Volume Change, %	+/- 5	1

LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137 Method A, 9.3.2 (Non-brittle after 3 min. @ -55°C)	D2000 Specification Requirements	Typical Test Results
	Pass	Pass

TEAR RESISTANCE – G21, D624	D2000 Specification Requirements	Typical Test Results
Die C, kN/m, min.	26	27

FLUID AGED, Chloramine – D471, (1 week @ 70°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points	Report	-1
Volume Change, %	Report	+4

FLUID AGED, Chloramine – D471, (2 week @ 70°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points	Report	-1
Volume Change, %	Report	+3

FLUID AGED, Chloramine – D471, (3 week @ 70°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points	Report	-2
Volume Change, %	Report	+5

FLUID AGED, Chloramine – D471, (4 week @ 70°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points	Report	-1
Volume Change, %	Report	+6

FLUID AGED, Chloramine – D471, (5 week @ 70°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points	Report	-1
Volume Change, %	Report	+6

Date: 2016-5-9

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