

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:

• <u>Peroxide</u>

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

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.

Request a Quote

]
COMPRESSION SET – B35, ASTM D 395 Method B (22 hrs. @ 125°C)	D2000 Specification	Typical Test
	Requirements	Results
Permanent Set, %, max.	70	11
FLUID RESISTENCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	D2000 Specification	Typical Test
	Requirements	Results
Volume Change, %	+/- 5	0.4
LOW TEMPERATURE RESISTANCE – F17, ASTM D 2137	D2000 Specification	Typical Test
	Requirements	Results
(Non-brittle after 3 min. @ -40°C)	Pass	Pass
		Touris al Tarat
TEAR RESISTANCE – G21, D624	D2000 Specification	Typical Test
Die C. Kaflere	Requirements	Results 24
Die C, Kgf/cm		24
ELUID ACED Chloroming (100 nnm) D471 (4244 hm @ 6000)	D2000 Specification	Tuning! Test
FLUID AGED, Chloramine (100 ppm) – D471, (1344 hrs. @ 60°C)	D2000 Specification Requirements	Typical Test Results
Hardness Change, points		-4
Tensile Strength Change, %	Report	-4 +12
Ultimate Elongation Change, %, max.	Report Report	+12 +8
Volume Change, %	· ·	+0
	Report	+2.1
FLUID AGED, Chloramine (100 ppm) –D471, (1344 hrs. @ 80°C)	D2000 Specification	Typical Test
FLUID AGED, Childrannine (100 ppin) – $D471$, (1344 fills. (00%)	Requirements	Results
Hardness Change, points		-4
Tensile Strength Change, %	Report Report	+8
Ultimate Elongation Change, %, max.	Report	+0
Volume Change, %	Report	+7
	Report	τ <u>∠</u>
FLUID AGED, Chloramine – D471, (24 hrs. @ 70°C)	D2000 Specification	Typical Test
$\mathbf{T} \mathbf{LOID} \mathbf{AOLD}, \mathbf{CIIIOI allille} = \mathbf{D} 471, (\mathbf{241II3}, \mathbf{(0,10,0)})$	Requirements	Results
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	+3
Ultimate Elongation Change, %, max.	Report	+0.4
Volume Change, %	Report	+0.4
Volume Change, 70	Пероп	10.7
FLUID AGED, Chloramine – D471, (672 hrs. @ 70°C)	D2000 Specification	Typical Test
	Requirements	Results
Hardness Change, points	Report	-1
Tensile Strength Change, %	Report	+6
Ultimate Elongation Change, %, max.	Report	
Volume Change, %	Report	
- change, /v		
FLUID AGED, Tap Water – D471, (24 hrs. @ 100°C)	D2000 Specification	Typical Test
	Requirements	Results
Hardness Change, points	Report	-4
Tensile Strength Change, %	Report	+7
Ultimate Elongation Change, %, max.	Report	+1.2
Volume Change, %	Report	+1.1
	. isport	

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.

Request a Quote

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

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.