Request a Quote

(800) 775-6525 Fax: (800) 421-2923
engineering@marcorubber.com
www.marcorubber.com

Marco Compound # E1118
75 Durometer, Black, Nuclear Safe 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:
- 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:
-45 to 300° F (-43 to 150° C)

Specification:
ASTM 2000 5CA710 A25 B35 EA14 F79 Z1 Z2 Z3 Z4 (Z3= Peroxide cured, contains less than 5% plasticizers).

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	75 +/- 5	79
Color	Black	Black
Tensile Strength, MPa (psi)	10.35 (1,500)	13.63 (1,977)
Ultimate Elongation, %	150	212
Specific Gravity		1.26

HEAT RESISTANCE – (70 hrs. @ 125°C), ASTM D573-04	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, max.	+10	+3
Tensile Strength Change, %, max.	-20	-8
Ultimate Elongation Change, %, max.	-40	-11
Weight Change, %		-0.5

Request a Quote

HEAT RESISTANCE – (70 hrs. @ 150°C), ASTM D573-04	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, max.		+3
Tensile Strength Change, %, max.		-8
Ultimate Elongation Change, %, max.		-11
Weight Change, %		-0.5
150° Bend	No crack	Passed

COMPRESSION SET –(22 hrs. @ 125°C). ASTM D395-03, Method B.	ASTM D2000 Requirements	Typical Test Results
Permanent Set, %, max.	50	16

WATER RESISTANCE – (70 hrs. @ 100°C), ASTM D471-06	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, max.	---	+1
Tensile Strength Change, %, max.	---	+3
Ultimate Elongation Change, %, max.	---	+7
Weight Change, %	+/-5	+2

LOW TEMPERATURE RESISTANCE. (ASTM D2137-05, Method A)	ASTM D2000 Requirements	Typical Test Results
(Non-brittle after 3 min. @ -40°C)	Non Brittle	Passed

ELEMENT CONTENT – (EN 14582 & 1C)	Requirements	Typical Test Results
Fluorine content, ppm	200 max.	None detectable
Chlorine content, ppm	200 max.	None detectable
Bromine content, ppm	200 max.	None detectable

ELEMENT CONTENT – (US EPA 3052 & ICP-OES)	Requirements	Typical Test Results
Mercury content, ppm	1 max.	None detectable
Arsenic content, ppm	2 max.	None detectable
Lead content, ppm	10 max.	None detectable
Zinc content, ppm	---	21.2

ELEMENT CONTENT – (US EPA 3052 & EA)	Requirements	Typical Test Results
Sulfur content, ppm	200 max.	0.02