



## Marco Compound # E1090

### 70 Durometer, White, FDA, 3-A, ADI Free 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. Marco compound E1090 is animal derivative free and compliant to regulations for use in food processing and handling industries.

#### **Features:**

- FDA and 3-A Sanitary compliant
- Animal Derivative Ingredient (ADI) Free material
- Good heat and compression resistance
- Resistant to ketones, hot and cold water, steam, alkalis, polar solvents, ozone, sunlight, alcohols & glycol engine coolant

#### **Limitations:**

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

#### **Service Temperature:**

-65 to 300° F (-54 to 150° C)

#### **Specification:**

ASTM D2000 2 AA 709 B13 EA14 F17

### PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	Typical Test Results
Hardness, Shore A	73
Color	White
Tensile Strength, psi	1437
Ultimate Elongation, %	155
Modulus at 100% elongation, psi	807
Specific Gravity	1.12

HEAT AGING –ASTM D 865 (70 hrs. @ 212°F)	Typical Test Results
Tensile Strength Change, %	-11.3
Elongation Change, %	-7.3
Hardness Change, Shore A	0

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.

<b>HEAT AGING – A25, ASTM D 865 (70 hrs. @ 257°F)</b>	<b>Typical Test Results</b>
Tensile Strength Change, %	-2.5
Elongation Change, %	-5.4
Hardness Change, Shore A	0

<b>HEAT AGING – ASTM D 865 (70 hrs. @ 302°F)</b>	<b>Typical Test Results</b>
Tensile Strength Change, %	-37.2
Elongation Change, %	-31.60
Hardness Change, Shore A	0

<b>COMPRESSION SET</b>	<b>Test Results</b>
Solid: 22 hrs. @ 158°F	4.6%
Solid: 22 hrs. @ 212°F	5.0%
Solid: 22 hrs. @ 257°F	16.9%
Solid: 22 hrs. @ 302°F	18.9%
Solid: 70 hrs. @ 212°F	6.9%
Plied: 22 hrs. @ 158°F	6.0%
Plied: 22 hrs. @ 212°F	6.8%
Plied: 22 hrs. @ 257°F	14.4%
Plied: 22 hrs. @ 302°F	18.7%
Plied: 70 hrs. @ 212°F	8.7%

<b>DESTILLED WATER AGED – 70 hrs. @ 212°F</b>	<b>Typical Test Results</b>
Tensile Strength Change, %	-17.0
Elongation Change, %	-4.3
Hardness Change, Shore A	-1.0
Volume change, %	-1.1

Date: 2016-5-17