

## Marco Compound # E1055

### 70 Durometer, Black, Peroxide Cured 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:

-65 to 300° F (-54 to 150° C)

#### Specification:

ASTM D2000 M3DA710 A25 A26 B35 B36 B44 C32 EA14 F19 Z1 (Z1= Peroxide)

#### PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	73
Color	Black	Black
Tensile Strength, MPa (psi)	10.0 (1,450) min.	16.6 (2404)
Ultimate Elongation, %	200	300
Modulus @ 100% Elongation, psi	-----	620
Tear Strength, kgf/cm	-----	36
Specific Gravity	-----	1.155

HEAT RESISTANCE – A25, (70 hrs. @ 125°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points, max.	-----	0
Tensile Strength Change, %, max.	-----	-8
Ultimate Elongation Change, %, max.	-----	-4
Volume Change, %	-----	-0.0

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<b>HEAT RESISTANCE – A25, (70 hrs. @ 150°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, points, max.	+/- 10	1
Tensile Strength Change, %, max.	+/- 20	-7
Ultimate Elongation Change, %, max.	-20	-4
Volume Change, %	-----	-0.8

<b>COMPRESSION SET – B13, ASTM D 395 Method B (22 hrs. @ 125°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Permanent Set, %, max.	-----	11

<b>COMPRESSION SET – B13, ASTM D 395 Method B (22 hrs. @ 150°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Permanent Set, %, max.	25	15

<b>COMPRESSION SET – B13, ASTM D 395 Method B (70 hrs. @ 100°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Permanent Set, %, max.	-----	13

<b>OZONE RESISTANCE– C32, ASTM D 1171 Method B</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
No Cracks	Pass	Pass

<b>FLUID RESISTANCE, WATER – EA14, ASTM D 471 (70 hrs. @ 100°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, points, max.	-----	-3
Tensile Strength Change, %, max.	-----	+4
Ultimate Elongation Change, %, max.	-----	+2
Volume Change, %	+/- 5	+1.2

<b>LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137 Method A, 9.3.2</b>		
(Non-brittle after 3 min. @ -55°C)	Non Brittle	Pass

<b>FLUID RESISTANCE, DOT #3 OIL – EA14, ASTM D 471 (70 hrs. @ 125°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, points, max.	-----	-5
Tensile Strength Change, %, max.	-----	-4
Ultimate Elongation Change, %, max.	-----	+2
Volume Change, %	-----	+2.0

<b>FLUID RESISTANCE, DOT #3 OIL – EA14, ASTM D 471 (70 hrs. @ 150°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, points, max.	-----	-5
Tensile Strength Change, %, max.	-----	-6
Ultimate Elongation Change, %, max.	-----	+5
Volume Change, %	-----	+2.7

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<b>FLUID RESISTANCE, DOT #4 OIL – EA14, ASTM D 471 (70 hrs. @ 125°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, points, max.	-----	-4
Tensile Strength Change, %, max.	-----	-1
Ultimate Elongation Change, %, max.	-----	+2
Volume Change, %	-----	+3.6

<b>FLUID RESISTANCE, DOT #4 OIL – EA14, ASTM D 471 (70 hrs. @ 150°C)</b>	<b>ASTM D2000 Requirements</b>	<b>Typical Test Results</b>
Hardness Change, points, max.	-----	-5
Tensile Strength Change, %, max.	-----	+1
Ultimate Elongation Change, %, max.	-----	+6
Volume Change, %	-----	+4.2

Date: 2016-5-9

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