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# Marco Compound # E1074
## 70 Durometer, White, FDA, 3-A, USP Class VI, 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 E1074 is animal derivative free and compliant to a variety of regulations for use in food and pharma industries.

**Features:**
- FDA, 3-A and USP Class I, II, III, IV & VI.
- 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 712 A13 EA14 F17
3 AA 712 B13 B33 EA14 F17
8 BA 712 B13
2 BA 710 F17
3 CA 710 A25 B44 B35 EA14 F17 F18

**PHYSICAL PROPERTY STANDARDS**

| ORIGINAL PROPERTIES | Typical Test Results |
|---|---|
| Hardness, Shore A | 72 |
| Color | White |
| Tensile Strength, psi | 1426 |
| Ultimate Elongation, % | 220 |
| Modulus at 100% elongation, psi | 470 |
| Specific Gravity | 1.12 |

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. @ 212°F) | **Typical Test Results** |
|---|---|
| Tensile Strength Change, % | -11.3 |
| Elongation Change, % | -7.3 |
| Hardness Change, Shore A | 0 |

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

| **HEAT AGING –** A25, ASTM D 865 (70 hrs. @ 302°F) | **Typical Test Results** |
|---|---|
| Tensile Strength Change, % | -37.2 |
| Elongation Change, % | -31.60 |
| Hardness Change, Shore A | |

| **COMPRESSION SET** | **Test Results** |
|---|---|
| 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% |

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

| **USP <87> Biological Reactivity Test For Class VI** | **Test Results** |
|---|---|
| Reactivity : Grade | 1.0 |

| **USP <88> Biological Reactivity Test For Class VI** | **Test Results** |
|---|---|
| Pass | PASS |

Date: 2016-7-1

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