

Marco Compound # P1006

70 Durometer, General Use Polyurethane Technical Datasheet

Common Names:

Polyurethane (AU, EU)

General description:

Polyurethane is a widely used material due to its excellent mechanical properties including high tensile strength and great tear, abrasion, and permeation resistance. Marco compound P1006 is a general purpose millable gum Polyether type Polyurethane. Please contact sales@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:

- Good hydraulic oil and gasoline resistance
- Resistant to pure aliphatic hydrocarbons (propane, butane, fuel)
- Resistance to mineral and silicone oils and greases
- Resistant to water, oxygen, ozone and aging
- Excellent tear and abrasion resistance

Limitations:

- Not compatible with acids, ketones, esters, ethers, alcohols, glycols
- Hot water, steam, alkalis and amines

Service Temperature:

-30 to 180°F (-34 to 82° C)

Specification

ASTM D2000 M3BG714 A14 B14 EO14 EO34

PHYSICAL PROPERTY STANDARDS

| ORIGINAL PROPERTIES | Specification Requirements | Typical Test Results |
|------------------------|----------------------------|----------------------|
| Hardness, Shore A | 70 +/- 5 | 70 |
| Color | Translucent-Yellow | Translucent-Yellow |
| Tensile Strength, psi | 14.8 (2031) min. | 18.27 (2,650) |
| Ultimate Elongation, % | 250 min. | 437 |
| Specific Gravity | Report | 1.15 |

| COMPRESSION SET – ASTM D 395 Method B (22 hrs. @ 100°C) | Specification Requirements | Typical Test Results |
|--|-----------------------------------|-----------------------------|
| Permanent Set, % | 50 max. | 45 |

| WATER RESISTANCE - ASTM D 471 (70 hrs. @ 100°C) | Specification Requirements | Typical Test Results |
|--|-----------------------------------|-----------------------------|
| Hardness Change, points | +10 | -6 |
| Tensile Strength Change, % | | -28 |
| Ultimate Elongation Change, % | | -15 |
| Volume Change, % | +/-15 | +5 |

| OIL RESISTANCE –ASTM # 1 Oil – ASTM D 471 (70 hrs. @ 100°C) | Specification Requirements | Typical Test Results |
|--|-----------------------------------|-----------------------------|
| Hardness Change, points | -7 to +5 | -4 |
| Tensile Strength Change, % | -20 max. | -7 |
| Ultimate Elongation Change, % | -40 max. | -9 |
| Volume Change, % | -5 to +10 | +6 |

| OIL RESISTANCE – IRM # 903 Oil, - ASTM D 471 (70 hrs. @ 100°C) | Specification Requirements | Typical Test Results |
|---|-----------------------------------|-----------------------------|
| Hardness Change, points | | -30 |
| Tensile Strength Change, % | | -45 |
| Ultimate Elongation Change, % | | -33 |
| Volume Change, % | | +57 |

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