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# Marco Compound # P1013 90 Durometer, Green, High Performance Polyurethane Technical Datasheet

## **Common Names:**

Polyurethane (AU, EU)

## General description:

Polyurethane is a widely used compound due to its superior strength, tear and abrasion resistance. Polyurethane also provides excellent permeation resistance. Please contact engineering@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 225°F

# **Specifications:**

ASTM D2000 M6BG910 A14 B14 E014 E034

### PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A	90 +/- 5	91
Color	Green	Green
Tensile Strength, MPa, (psi), min.	10 (1440)	13.4 (1930)
Ultimate Elongation, %	100 min.	123
Specific Gravity – ASTM D 297		1.22

HEAT RESISTANCE - ASTM D 573 (70 hrs. @ 100°C)	Specification Requirements	Typical Test Results
Hardness Change, points	+15 max.	+4
Tensile Strength Change, %	-20 max.	-12
Ultimate Elongation Change, %	-40 max.	-10

COMPRESSION SET – ASTM D 395 Method B (22 hrs. @ 100°C)	Specification Requirements	Typical Test Results
Permanent Set, %	25 max.	23

OIL RESISTANCE -ASTM # 1 Oil - ASTM D 471 (70 hrs. @ 100°C)	Specification Requirements	Typical Test Results
Hardness Change, points	-5 to +15	-4
Tensile Strength Change, %	-25 max.	-16
Ultimate Elongation Change, %	-45 max.	-37
Volume Change, %	-10 to +5	+3

OIL RESISTANCE – IRM # 3 Oil, - ASTM D 471 (70 hrs. @ 100°C)	Specification Requirements	Typical Test Results
Hardness Change, points	0 to -15	-11
Tensile Strength Change, %	-45 max.	-33
Ultimate Elongation Change, %	-45 max.	-44
Volume Change, %	0 to +35	+25