



Marco Compound # P1003

90 Durometer, Black, General Use 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:

-65 to 225°F

Specification

ASTM D2000

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A	90 +/- 5	91
Color	Black	Black
Tensile Strength, psi	1450 min.	4100
Ultimate Elongation, %	100 min.	230

Information within is believed to be accurate and reliable. However, Marco Rubber makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.

HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 212°F)	Specification Requirements	Typical Test Results
Hardness Change, points	+15 max.	+1
Tensile Strength Change, %	-20 max.	+5
Ultimate Elongation Change, %	-40 max.	-8

COMPRESSION SET – ASTM D 395 Method B (70 hrs. @ 212°F)	Specification Requirements	Typical Test Results
Permanent Set, %	50 max.	28

OIL RESISTANCE –ASTM # 1 Oil – ASTM D 471 (70 hrs. @ 212° F)	Specification Requirements	Typical Test Results
Hardness Change, points	-5 to +15	-1
Tensile Strength Change, %	-25 max.	+1
Ultimate Elongation Change, %	-45 max.	-5
Volume Change, %	-10 to +5	-4

OIL RESISTANCE –ASTM # 3 Oil – ASTM D 471 (70 hrs. @ 212° F)	Specification Requirements	Typical Test Results
Hardness Change, points	-20 to +0	-1
Tensile Strength Change, %	-45 max.	+1
Ultimate Elongation Change, %	-45 max.	+3
Volume Change, %	0 to +35	+6

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