Request a Quote

(800) 775-6525
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www.marcorubber.com

Marco Compound # P1000

70 Durometer, Yellow-Translucent, 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. Marco compound P1000 uses a specialty Cast TODI cure system which yields greatly increased performance over Millable Gum type Polyurethane materials. 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

Cure System
Cast TODI Performance Cure

Service Temperature:
-65 to 250° F

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	73
Color	Translucent	Translucent
Tensile Strength, psi	5,000 min.	5,950
Ultimate Elongation, %	450 min.	660
Modulus @ 100%, psi	------	850
Modulus @ 300%, psi	------	990

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HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 100°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, points	+15 max.	-1
Tensile Strength Change, %	-20 max.	-6
Ultimate Elongation Change, %	-40 max.	-5

COMPRESSION SET – ASTM D 395 Method B (70 hrs. @ 70°C)	**Specification Requirements**	**Typical Test Results**
Permanent Set, %	35 max.	18

COMPRESSION SET – ASTM D 395 Method B (70 hrs. @ 100°C)	**Specification Requirements**	**Typical Test Results**
Permanent Set, %	65 max.	58

FLUID RESISTANCE - Water – ASTM D 471 (70 hrs. @ 100°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, points	+/- 10	-7
Volume Change, %	-50 max.	-30
Ultimate Elongation Change, %	-50 max.	-1
Volume Change, %	0 to +25	+10

FUEL RESISTANCE – Unleaded Gasoline – ASTM D 471(70 hrs. @ 23°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, points	+/- 10	-7
Tensile Strength Change, %	-60 max.	-30
Ultimate Elongation Change, %	-60 max.	-1
Volume Change, %	0 to +40	+10

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.	-8
Volume Change, %	-10 to +5	-1

OIL RESISTANCE – IRM # 903 Oil, - ASTM D 471 (70 hrs. @ 100°C)	**Specification Requirements**	**Typical Test Results**
Hardness Change, points	0 to -15	-5
Tensile Strength Change, %	-45 max.	-17
Ultimate Elongation Change, %	-45 max.	-8
Volume Change, %	0 to +35	+5

TEAR RESISTANCE – ASTM D624, Die C	**Specification Requirements**	**Typical Test Results**
PLI	400	580

Date: 2016-7-1