P1000 MATERIAL SUMMARY

70 Durometer, Yellow-Translucent, High Performance Polyurethane

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Marco compound P1000 uses a specialty Cast TODI cure system which yields greatly increased performance over Millable Gum type Polyurethane materials. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

ABOUT #P1000

Polyurethane is a widely used compound due to its superior strength, tear and abrasion resistance. Polyurethane also provides excellent permeation resistance.

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

APPLICATION EXAMPLES

- Hydraulic applications
- Belt applications
- Dynamic applications

ADDITIONAL INFORMATION

- Service Temperature of -65° to 250°F
- Cast TODI Performance Cure
- Spec: ASTM D2000

This information is accurate and reliable to the best of our knowledge. However, Marco Rubber makes no warranty, expressed or implied, that parts manufactured from this material will perform satisfactorily in the customer's application. It is the customer's responsibility to evaluate parts prior to use.

MARCO RUBBER & PLASTICS

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PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	Specification Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	73
Color	Translucent	Translucent
Tensile Strength, psi	5,000 min.	5950
Ultimate Elongation, %	450 min.	660
Modulus @ 100%, psi	------	850
Modulus @ 300%, psi	------	990
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	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

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