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Marco Compound # N1011

70 Durometer, Black, Freon Resistant Neoprene
Technical Datasheet

Common Names:
Neoprene, Chloroprene, CR

General Description:
Neoprene was the first synthetic rubber developed commercially and exhibits generally good ozone, aging and chemical resistance. Neoprene rubbers contain Chlorine in the polymer to reduce the reactivity to many oxidizing agents, as well as to oil and flame. Neoprenes have good abrasion and tear resistance and are suitable for use in heating and air conditioning systems (HVAC), refrigeration units and numerous dynamic applications. N1011 is formulated to provide value with balance cost and performance. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:
- Compatible with Freon R11, R12, R134a, R404a, R407, R410, R500 & R502
- Paraffin base mineral oil with low DPI, e.g. ASTM oil No. 1
- Silicone oil and grease
- Water and water solvents at low temperatures
- Refrigerants
- Ammonia
- Carbon dioxide
- Improved ozone, weathering and aging resistance compared with nitrile rubber.

Limitations:
- Aromatic hydrocarbons (benzene)
- Chlorinated hydrocarbons (trichloroethylene)
- Polar solvents (ketones, esters, ethers, acetones).

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Service Temperature:
-40 to 250° F

Specification:
ASTM D2000 M2BE717 A14 B14 EO14 Z1 Z2

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	71
Color	Black	Black
Tensile Strength, MPa, (psi) min.	17 (2466)	21.52 (3,100)
Ultimate Elongation, %	250 min.	285

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.

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HEAT RESISTANCE – A14, ASTM D 573 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+ 15	-4
Tensile Strength Change, %	- 15	-2
Ultimate Elongation Change, %	-40 max.	-15

COMPRESSION SET – B14, ASTM D 325 Method B (22 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	25 max.	9

FLUID RESISTANCE – IRM 901 Oil – EO14, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+/- 10	-1
Tensile Strength Change, %	-30 max.	-5
Ultimate Elongation Change, %	-30 max.	-16
Volume Change, %	-10 to +15	+6

FLUID RESISTANCE – IRM 903 Oil, -Z1, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness change, pts., Shore A	Report	-18
Tensile Strength Change, %	-50 max.	-45
Ultimate Elongation Change, %	-40 max.	-38
Volume Change, %	+80 max.	+60

LOW TEMPERATURE PROPERTY – Z2	ASTM D2000 Requirements	Typical Test Results
TR-10° C (°F)	Report	-38 (-37)

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