



Marco Compound # N1012

80 Durometer, Black, 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. Neoprene have good abrasion and tear resistance and are suitable for use in heating and air conditioning systems (HVAC), refrigeration units and numerous dynamic applications. N1012 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:

- Low cost.
- 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).

Service Temperature:

-40 to 250°F

Specification:

ASTM D2000 M4BC815 A14 B14 EO14 EO34

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	80 +/- 5	77
Color	Black	Black
Tensile Strength, MPa	14 min.	15
Ultimate Elongation, %	150 min.	194

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 – A14, ASTM D 573 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+ 15	+2
Tensile Strength Change, %	- 15	-15
Ultimate Elongation Change, %	-40 max.	-36

COMPRESSION SET – B14, ASTM D 325 Method B (22 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	35 max.	28

FLUID RESISTANCE –ASTM #1 Oil – EO14, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	+/- 10	-8
Tensile Strength Change, %	-30 max.	-12
Ultimate Elongation Change, %	-30 max.	-15
Volume Change, %	-10 to +15	+4

FLUID RESISTANCE – IRM 903 Oil, -EO34, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Tensile Strength Change, %	-30 max.	+7
Ultimate Elongation Change, %	-30 max.	-30
Volume Change, %	±15 max.	-10
Hardness Change, pts.	±10 max.	+6

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