

Marco compound N1028 is formulated to resist many refrigerants including Freon based chemicals. Neoprene rubbers contain Chlorine in the polymer to reduce the reactivity to many oxidizing agents, as well as to oil and flame.

ABOUT #N1028

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. 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 many Freon based and other refrigerants
- Excellent resistance to paraffin base mineral oil with low DPI, e.g. ASTM oil No. 1
- Good/Excellent resistance to silicone oil and grease, water and water solvents at low temperatures, ammonia, and carbon dioxide
- Improved ozone, weathering and aging resistance compared with nitrile rubber.

APPLICATION EXAMPLES

- HVAC applications
- Refrigeration applications
- Dynamic applications

ADDITIONAL INFORMATION

- Service Temperature of -67° to 250°F
- Spec: ASTM D2000 M2BC710 A14 B14 E014 E034 F17

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.

PHYSICAL PROPERTIES

| ORIGINAL PROPERTIES | | Typical Test Results |
|--|--|----------------------|
| Hardness, Shore A | | 70 ± 5 |
| Color | | Black |
| Tensile Strength, MPa (psi) | | 12.88 (1867) |
| Ultimate Elongation, % | | 230 |
| Modulus @ 100% Elongation, MPa | | 5.87 |
| TR-10, °C | | -40.2 |
| Specific Gravity | | 1.49 |
| COMPRESSION SET – % Permanent Set | | Typical Test Results |
| 22 hrs. @ 100°C | | 11 |
| 70 hrs. @ 100°C | | 19.1 |
| HEAT AGING, DRY AIR - 70 hrs. @ 100°C | | Typical Test Results |
| Tensile Strength Change, % | | -5 |
| Elongation Change, % | | -9 |
| Hardness Change, Pts Shore A | | 6 |
| Weight Change, % | | -2.4 |
| FLUID IMMERSION, ASTM OIL #1 (IRM 901) – 70 hrs. @ 100°C | | Typical Test Results |
| Hardness Change, Pts Shore A | | 4 |
| Tensile Strength Change, % | | -5 |
| Elongation Change, % | | -13 |
| Volume Change, % | | -4.3 |
| FLUID IMMERSION, ASTM OIL #3 (IRM 903) – 70 hrs. @ 100°C | | Typical Test Results |
| Hardness Change, Pts Shore A | | -16 |
| Tensile Strength Change, % | | -8 |
| Elongation Change, % | | -10 |
| Volume Change, % | | 32.2 |
| FLUID IMMERSION, R410 / POE OIL 7/3 – 168 hrs. @ 120°C | | Typical Test Results |
| Hardness Change, Pts Shore A | | -16 |
| Tensile Strength Change, % | | 1 |
| Elongation Change, % | | -16 |
| Volume Change, % | | 24.9 |
| FLUID IMMERSION, R407 / POE OIL 7/3 – 168 hrs. @ 120°C | | Typical Test Results |
| Hardness Change, Pts Shore A | | -16 |
| Tensile Strength Change, % | | -4 |
| Elongation Change, % | | 3 |
| Volume Change, % | | 24.7 |

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|--|--|----------------------|
| FLUID IMMERSION, R22 / PAG OIL 7/3 – 168 hrs. @ 120°C | | Typical Test Results |
| Hardness Change, Pts Shore A | | 3 |
| Tensile Strength Change, % | | 2 |
| Elongation Change, % | | -11 |
| Volume Change, % | | -1.1 |
| FLUID IMMERSION, R22 / POE OIL 95/5 – 240 hrs. @ 93°C | | Typical Test Results |
| Weight Change, % | | 4.6 |
| Volume Change, % | | 5.4 |
| OUT GASED – 1 hrs. @ 65°C | | Typical Test Results |
| Hardness Change, Pts Shore A | | -9 |
| Tensile Strength Change, % | | -9 |
| Elongation Change, % | | -14 |
| Weight Change, % | | 4.4 |
| Volume Change, % | | 5.3 |
| FLUID IMMERSION, R134A / POE OIL 95/5 – 240 hrs. @ 93°C | | Typical Test Results |
| Weight Change, % | | 4.9 |
| Volume Change, % | | 7.5 |
| OUT GASED – 1 hrs. @ 65°C | | |
| Hardness Change, Pts Shore A | | -9 |
| Tensile Strength Change, % | | -3 |
| Elongation Change, % | | -22 |
| Weight Change, % | | 4.3 |
| Volume Change, % | | 7.2 |