L1010 MATERIAL SUMMARY



O Durometer, Black, Explosive Decompression and Base Resistant Fluoropolymer

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The L1010 compound is Explosive Decompression (ED) resistant for use in high pressure and pressure cycling applications. Contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

ABOUT #L1010

Marco compound L1010 is a specially formulated 90 durometer fluoropolymer whose performance is comparable to an Aflas® FEPM with increased base resistance. This material also exhibits excellent solvent, heat and steam resistance. It provides superior performance in water, steam and virtually all caustics making it ideal for use in applications in the oil and gas exploration and extraction industry.

FEATURES

- Increased base resistance
- · Explosive Decompression (ED) resistant
- Tested to NACE TM0297
- · Resistant to high pressure CO2 gas
- · Ideal for prolonged exposure to steam
- · High resistance to acids, amines, steam, brine, sour oil and gas (H2S)
- · Resistant to highly reactive organic and inorganic chemicals

APPLICATION EXAMPLES

- · High temperature pumps
- · Safety valves
- · Completion and production equipment

ADDITIONAL INFORMATION

- · Service Temperature of 5° to 482°F
- Spec: ASTM D2000 M2HK910 A1-10 B38 EF31 F15

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.





PLASTICS O Durometer, Black, Explosive Decompression and Base Resistant Fluoropolymer

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PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	90 +/- 5	91
Color	Black	Black
Tensile Strength, psi, ASTM D412	1450 (Min)	2872
Ultimate Elongation, %, ASTM D412	100 (Min)	118
Specific Gravity	Report	1.84
HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 250°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	10	5
Tensile Strength Change, %	-25	-11
Ultimate Elongation Change, %, max.	-25	-3
Weight Change, %		-2.6
COMPRESSION SET – 22 hrs. @ 200°C	ASTM D2000 Requirements	Typical Test Results
Compression Set, %	50	39
LOW TEMPERATURE RESISTANCE – 3 min. @ -25°C	ASTM D2000 Requirements	Typical Test Results
Brittleness Test	Non-Brittle	Pass
FUEL C OIL IMMERSION – 70 hrs @ 23°C	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+/- 5	-4
Tensile Strength Change, %, ASTM D1414	-25	-11
Ultimate Elongation Change, %, ASTM D1414	-20	18
Volume Change, %, ASTM D471	0 to +10	4.8
IRM 901 OIL IMMERSION – 70 hrs @ 150°C	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240		1
Tensile Strength Change, %, ASTM D1414		9
Ultimate Elongation Change, %, ASTM D1414		9
Volume Change, %, ASTM D471		1.2
IRM 903 OIL IMMERSION – 70 hrs @ 150°C	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240		-1
Tensile Strength Change, %, ASTM D1414		-3
Ultimate Elongation Change, %, ASTM D1414		18
Volume Change, %, ASTM D471		2.5
METHANOL IMMERSION – 70 hrs @ 23°C	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240		-3
Tensile Strength Change, %, ASTM D1414		-15
Ultimate Elongation Change, %, ASTM D1414		18
Volume Change, %, ASTM D471		2.9



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ASTM 3 + 1% BENZYLAMIDE IMMERSION – 168 hrs @ 150°C	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240		-6
Tensile Strength Change, %, ASTM D1414		-16
Ultimate Elongation Change, %, ASTM D1414		1
Volume Change, %, ASTM D471		2.6