



Marco Compound # L1003 90 Durometer, Black Aflas® Technical Datasheet

General Description:

Aflas® materials exhibit excellent thermal and chemical resistance, including resistance to bases and other challenging media. Aflas® also offers great performance in water, steam and virtually all caustics making them ideal for pharmaceutical and biotechnology manufacturers that use steam and caustic chemicals in the sterilization process. Marco compound L1003 is a 90 durometer formulation for use in high pressure applications. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

Features:

- Excellent steam and caustic resistance up to 400° F (204° C)
- Resistant to acids and bases
- Amines and H₂S resistance
- Ozone resistance
- Resistant to highly reactive organic and inorganic chemicals
- Excellent volume resistivity (greater than 10¹⁶Ω cm)
- Radiation resistance up to 200 MRad of gamma-ray radiation
- Withstands extended exposure to 200 °C steam
- Continuous use at 230 °C
- Resistant to highly reactive organic and inorganic chemicals

Limitations:

- Aromatic Fuels
- Ketones
- Carbon tetrachloride
- Chlorinated Hydrocarbons
- Organic Refrigerants

Service Temperature:

15 to 450° F

Specification:

ASTM D2000 M3HK910 A1-10 B37 EF31

TYPICAL PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Reports
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	90 +/- 5	88
Color	Black	Black
Tensile Strength, psi, ASTM D412	1,440	1,970
Ultimate Elongation, %, ASTM D412	100	139
Specific Gravity	Report	1.61

HEAT RESISTANCE – ASTM D 573 (70 hrs. @ 482°F)	ASTM D2000 Requirements	Typical Test Reports
Hardness Change, points	+10	0
Tensile Strength Change, %	- 25	+8
Ultimate Elongation Change, %, max.	- 25	+30

FUEL C OIL IMMERSION – 70 hrs @ 73° F	ASTM D2000 Requirements	Typical Test Reports
Hardness Change, Shore A, ASTM D2240	+/- 5	-4
Tensile Strength Change, %, ASTM D1414	-25	-7
Ultimate Elongation Change, %, ASTM D1414	-20	-12
Volume Change, %, ASTM D471	0 to +10	+6

COMPRESSION SET - 22 hrs. @ 392°F	ASTM D2000 Requirements	Typical Test Reports
Compression Set, %	50	36

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