

# V1000 MATERIAL SUMMARY

75 Durometer, Black, Commercial Grade FKM Type A

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FKM compounds are widely used in chemical, automotive, aerospace and industrial applications. These compounds offer excellent chemical and temperature resistance. Marco Rubber stocks all USA standard Viton O-Rings sizes, thousands of metric Viton O-Ring and non-standard sizes.

## **ABOUT #V1000**

V1000 is Marco's basic commercial grade compound. It is an FKM Type A. There are many additional specialty compounds based on A, B, F, GLT, GFLT, LTFE and ETP polymer types. Please contact sales@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, chemicals, or physical properties is required.

## **FEATURES**

- · High temperature resistance.
- Excellent resistance to acids, fuels, mineral oils, greases, aliphatic, aromatic and chlorinated hydrocarbons, non-flammable hydraulic fluids (HFD) and many organic solvents and chemicals.
- · Excellent resistance to aging and ozone.
- · Low gas permeability, low compression set.

#### APPLICATION EXAMPLES

- Vacuum applications
- Acidic applications
- · Petroleum applications

### **ADDITIONAL INFORMATION**

- · Service Temperature of -15° to 437°F
- · Cure System: Bisphenol
- Spec: ASTM 2000 M4HK710 A1-11 B38 EF31 E031 E078 Z1

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.



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# **PHYSICAL PROPERTIES**

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240 (Z1=75+/-5)	75 +/- 5	75
Color	Black	Black
Tensile Strength, MPa (psi), per ASTM D412	10.0 (1,450) min.	11.5 (1,650)
Ultimate Elongation, %, per ASTM D412	150 Min.	200
HEAT RESISTANCE – A1-11, ASTM D 573 (70 hrs. @ 275°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+10 (max)	+5
Tensile Strength Change, %, ASTM D412	-40 (max)	-13
Ultimate Elongation Change, %, ASTM D412	-25 (max)	-20
COMPRESSION SET – B38, ASTM D 395 Method B (22 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	50 (max)	14
COMPRESSION SET – ASTM D 395 Method B (70 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Permanent Set %	-	20
FLUID RESISTANCE – ASTM Fuel C – EF31, ASTM D 471(70 hrs. @ 23°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	+/- 10	-4
Tensile Strength Change, %, ASTM D412	-25 (max)	-20
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-13
Volume Change, %, ASTM D471	0 to + 10	4
FLUID RESISTANCE -ASTM #101 Oil - E078, ASTM D 471 (70 hrs. @ 200°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, Shore A, ASTM D2240	-15 to + 5	-10
Tensile Strength Change, %, ASTM D412	-40 (max)	-15
Ultimate Elongation Change, %, ASTM D412	-20 (max)	-7
Volume Change, %, ASTM D412	0 to + 15	14