

Designed to be an extended temperature range material, Marco Compound #B1083 is formulated to provide value by balancing cost and performance. Specific physical and chemical resistances vary by compound formulation. Please contact sales@marcorubber.com for assistance in selecting a specialized compound.

ABOUT #B1083

Marco Compound B1083 is the most commonly used high performance, extended temperature range NBR material because of relative low cost, good mechanical properties, and basic resistance to many common lubricants. Specific physical and chemical resistances vary by compound formulation.

FEATURES

- Higher performance, improved lower and higher temperature resistance and oil resistance at higher temperatures. Similar to Parker N0794-75 and M83461
- Good/Excellent resistance to compression set and tear/abrasion.
- Good/Excellent resistance to many petroleum oils/greases, hydraulic fluids, alcohol, ambient water, silicone greases, Di-ester base lubricants and ethylene-glycol based fluids.

APPLICATION EXAMPLES

- Automotive applications
- Pneumatic applications
- Hydraulic Application

ADDITIONAL INFORMATION

- Service Temperature of -65° to 275°F
- Cure System: Sulphur
- Spec: ASTM D2000 M2BG710 A14 B14 E035 EF11 EF21 E014 F19 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.

PHYSICAL PROPERTIES

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A, ASTM D2240	70 +/- 5	70
Color	Black	Black
Tensile Strength, MPa (psi), ASTM D2240	10 (1,450) min.	17.68 (2,563)
Ultimate Elongation, %, ASTM D412	250 min.	300
Modulus @ 100%, MPa (psi), ASTM D412		5.3 (768)
HEAT RESISTANCE – A14, ASTM D 573 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-15 to +15	+4
Tensile Strength Change, %	-30 TO +30	+1
Ultimate Elongation Change, %	-50 max.	-15
Volume Change, %		-1
COMPRESSION SET – B14, ASTM D 325 Method B	ASTM D2000 Requirements	Typical Test Results
Permanent Set %, (22 hrs. @ 100°C)	25 max.	12
FLUID RESISTANCE, FUEL TYPE A – EF11, ASTM D 471 (70 hrs. @ 23°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-10 to +10	-10
Tensile Strength Change, %	-25 max.	-24
Ultimate Elongation Change, %	-25 max.	-16
Volume Change, %	-5 to +10	+9.3
FLUID RESISTANCE, FUEL TYPE B – EF21, ASTM D 471 (70 hrs. @ 23°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-30 to 0	-20
Tensile Strength Change, %	-60 max.	-42
Ultimate Elongation Change, %	-60 max.	-48
Volume Change, %	0 to +40	39
FLUID RESISTANCE, ASTM #1 OIL – E014, ASTM D 471 (70 hrs. @ 100°C)	ASTM D2000 Requirements	Typical Test Results
Hardness Change, points	-5 to +10	+3
Tensile Strength Change, %	-25 max.	0
Ultimate Elongation Change, %	-45 max.	-6
Volume Change, %	-10 to +5	-4
LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137, METHOD A	ASTM D2000 Requirements	Typical Test Results
(Non-brittle after 3 min. @ -55°C)	Pass	Pass
TR-10 Retraction at lower temperature resistance, ASTM D1329		-48°C