Request a Quote

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Marco Compound S1131
50 Durometer, Black, FDA Compliant Silicone
Technical Datasheet

Common Names:
Silicone, VQM

General Description:
Silicones are excellent seal materials for extreme temperature in static applications. Silicones can be synthesized with a wide variety of properties and compositions. Please contact engineering@marcorubber.com for assistance in selecting a specialized compound when increased resistance to temperature, lubricants, or physical properties is required.

Features:
- FDA Compliant
- Excellent heat and compression resistance
- Excellent resistance to oxygen, ozone and sunlight
- Good chemical resistance
- Resistance to fungal and biological attack
- Flexible
- Good electrical insulation

Limitations:
- Not recommended for dynamic application
- Concentrated solvents, oils, concentrated acids, diluted sodium hydroxide.
- Poor abrasion resistance
- Low strength
- High gas permeability

Cure System:
Peroxide

Service Temperature:
-65 to 400° F (-54 to 205° C)

Specification:
ASTM D2000 M5GE506 A19 B37 EA14 F19 Z1 (Z1 = FDA)

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	50 +/- 5	50
Color	Black	Black
Tensile Strength, MPa (psi)	6.0 (865)	7.6 (1102)
Ultimate Elongation, %	250	350
Specific Gravity	-----	1.16

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HEAT RESISTANCE – A19, ASTM D 573 (70 hrs. @ 225°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A	+10	+6
Tensile Strength Change, %, max.	-25	-16
Ultimate Elongation Change, %, max.	-30	-20

COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 175°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set, %, max.	25	24

FLUID RESISTANCE – Water – EA14, ASTM D 471 (70 hrs. @ 225°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A	+10	+6
Tensile Strength Change, %, max.	-25	-16
Ultimate Elongation Change, %, max.	-30	-20

LOW TEMPERATURE RESISTANCE – F19, ASTM D 2137 Method A, 9.3.2 (3 min. @ -55° C)	**ASTM D2000 Requirements**	**Typical Test Results**
Brittleness Test	Non-Brittle	Pass