Request a Quote

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Marco Compound S1189
70 Durometer, Clear-Translucent, Food Grade 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. Marco compound S1189 is specifically formulated for use in food contact applications. This compound is compliant to FDA, 3-A Sanitary, and NSF-51 specifications. 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, 3-A Sanitary, and NSF-51 compliant for use in food contact applications
- 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

Service Temperature:
-75 to 400° F (-60 to 205° C)

Specification:
ASTM 2000 M7GE705 A19 B37 EA14 EO16 EO36 F19 G11

PHYSICAL PROPERTY STANDARDS

ORIGINAL PROPERTIES	ASTM D2000 Requirements	Typical Test Results
Hardness, Shore A	70 +/- 5	71
Color	Clear	Clear
Tensile Strength, psi	725	1141
Ultimate Elongation, %	150	203

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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	-23
Ultimate Elongation Change, %, max.	-30	-30

COMPRESSION SET – B37, ASTM D 325 Method B (22 hrs. @ 175°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Permanent Set, %, max.	30	16

FLUID RESISTANCE, Water – EA14, ASTM D 471 (70 hrs. @ 100°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A	+/- 5	-3
Volume Change, %	+/- 5	+0.7

FLUID RESISTANCE –IRM 901 Oil – EO16, ASTM D 471 (70 hrs. @ 150°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A	-15 to 10	-9
Tensile Strength Change, %, max.	-20	-9
Ultimate Elongation Change, %, max.	-20	-6
Volume Change, %	0 to 15	+4.6

FLUID RESISTANCE – IRM 903 Oil, -EO36, ASTM D 471 (70 hrs. @ 150°C)	**ASTM D2000 Requirements**	**Typical Test Results**
Hardness Change, points, Shore A, max.	-40	-28
Volume Change, %, max.	+60	+40

TEAR RESISTANCE - G11, ASTM D 624, Die B,	**ASTM D2000 Requirements**	**Typical Test Results**
Tear Resistance, Kn/m, min.	9	11

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

Date: 2016-12-20