

Material Properties

General Purpose Silicone (VMQ, S70)

Material code: 601

NOTE - All testing done on AS568-214 size O-rings

Original Properties	AMS-3304; A-A-59588 (ZZ-R-765) Class 2A, 2B Grade 70	Typical Values
Hardness, Shore A, ASTM D2240	75 ± 5	72
Tensile Strength, psi, ASTM D412 Die C	650 min.	1050
Ultimate Elongation, %, ASTM D412 Die C	125 min.	260
Tear Resistance, lbf/in, ASTM D624 Die B	25 min.	106
Specific Gravity, g/cc, ASTM D297	Report	1.28
Color	Red	Red
Air Aging, ASTM D573, 70 hrs. at 437°F		
Hardness change, Shore A, ASTM D2240	± 10	+5
% Tensile Strength change, ASTM D412 Die C	-25 max.	-16
% Elongation change, ASTM D412 Die C	-40 max.	-20
Compression Set, ASTM D395 Method B, 70 hrs. at 302°F		
% Permanent set	25 max.	18
% Permanent set	40 max.	18
Water Immersion, ASTM D471, 70 hrs. at 212°F A-A-59588 Class 2A, 2B Grade 70		
% Volume change, ASTM D471	+5 max.	+1
ASTM #1 Oil Immersion, ASTM D471, 70 hrs. at 302°F		
Hardness change, Shore A, ASTM D2240	-15 to +5	-3
% Tensile Strength change, ASTM D412 Die C	-20 max.	-2
% Elongation change, ASTM D412 Die C	-15 max.	-10
% Volume change, ASTM D471	0 to +15	+4
Decomposition per AMS-3304	None	None
Surface tack per AMS-3304	None	None
Low Temperature Brittleness, ASTM D2137		
3 minutes at -85°F	No cracks	Pass

Note: Property values should be interpreted as typical rather than minimum value. All technical information and recommendations are presented in good faith, and based upon laboratory and real-world tests believe to be reliable and practical. However, K.C. Seals, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customers' responsibility to determine product suitability to any given application.

