Porter Seal Denver
Compound Technical Report

Silicone 70 Duro

Silicone offers a broad temperature range, from -80° F to +400° F, and excellent dry heat resistance. Our silicone compounds are inert and guarantee complete compliance to ASTM, military and FDA specifications required by food, medical, electrical and filter manufacturers. They are not used in a dynamic seals because of relatively poor tensile, tear and abrasion resitance.

ASTM Des.	Original properties	D2000 Spec.	Result
	Durometer, Shore A	70 ± 5	71
	Tensile, psi (MPa), min.	875 (6)	995 (6.9)
	Elongation, % min	150	175
A19	Heat age, 70 hrs @ 225° C		
	Durometer change, points	± 10	+ 4
	Tensile strength change, % max	- 25	- 14.3
	Elongation change, % max	- 30	- 18.4
B37	Compression set, 22 hrs @ 175° C		
	Original deflection, % Max.	25	12.4
	Compression set, 70 hrs @ 150° C		
	Original deflection, %		19.4
EO16	ASTM #1 oil, 70 hrs @ 150° C		
	Durometer change, points	0 / - 15	- 7
	Tensile change, % max	- 20	-2.9
	Elongation change, % max	- 20	0
	Volume change, %	0 / +10	+ 6.4
E036	ASTM #3 oil, 70 hrs @ 150° C		
	Durometer change, points	- 30	- 20
	Volume change, %	+ 60	+ 35
EA14	Water Resistance, 70 hrs @ 100° C		
	Durometer change, points	± 5	- 1
	Volume change, %	± 5	+ 2.5
F19	Low Temperature Brittleness		
	ASTM D2137, Method A		
	3 Minutes @ -55° C	Non Brittle	Pass
	3 Minutes @ -65° C		Pass
G11	Tear resistance, Die B, ppi (kN/m)	51 (9)	107 (18.8)

Specifications met:
ASTM D2000-01 Grade M5GE706 A19 B37 EO16 EO36 EA14 F19 G11
ZZ-R-765B Class 2a & 2a, Grade 70 and FDA per CFR 177.2600

Silicone is Recommended for	Silicone is not Recommended for
High temperature (dry heat)	Most petroleum oils
Low temperature	Ketones
High analine point oil	Dynamic applications