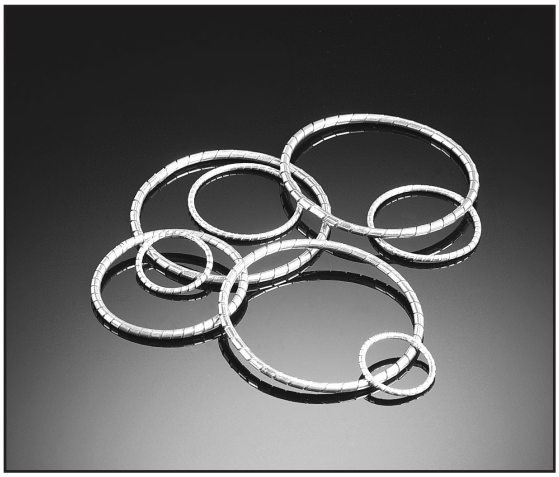
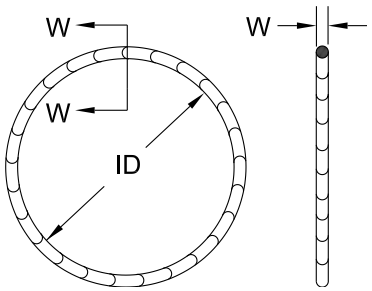
O-Rings: Enduro-Shield & Flexi-Shield



Flexi-Shield and Enduro-Shield O-Rings are designed to provide an EMI seal for the life of a system. These o-rings are ideal for use in jam-nut connectors. In actual use, this gasket has achieved up to 1,000 insertions.



Part Number:
Flexi-Shield: FSOG-B-_____
Enduro-Shield: SSOG-B-_____

Dash No. From Table

Dash No.	Dimensions			
	W Dia.	Tol.	ID	Tol.
011	.070"	±.003	.301"	±.020"
012			.364"	
013			.426"	
014			.489"	
015			.551"	
016			.614"	
017			.676"	
018			.739"	
019			.801"	
020			.864"	
021			.926"	
022			.989"	
023			1.051"	
024			1.114"	
025			1.176"	
026			1.239"	
027			1.301"	
028			1.364"	
029			1.489"	
030			1.614"	
031			1.739"	
032			1.864"	
033			1.989"	
034	.070"	±.003"	2.114"	±.030"
035			2.239"	
036			2.364"	
037			2.489"	
038			2.614"	
039			2.739"	
040			2.864"	
041			2.989"	
042			3.239"	
043			3.489"	
044			3.739"	
045			3.989"	
046			4.239"	
047			4.489"	
048			4.739"	
049			4.989"	
050			5.239"	
111	.103"	±.004"	.424"	±.020"
112			.487"	
113			.549"	
114			.612"	
115			.674"	
116			.737"	
117			.799"	
118			.862"	
119			.924"	
120			.987"	
121			1.049"	
122			1.112"	
123			1.174"	
124			1.237"	
125			1.299"	
126			1.372"	
127			1.424"	
128			1.487"	
129			1.549"	

Dash No.	Dimensions			
	W Dia.	Tol.	ID	Tol.
130	.103"	±.004"	1.612"	±.020"
131			1.674"	
132			1.737"	
133			1.799"	
134			1.862"	
135			1.925"	
136			1.987"	
137	.103"	±.004"	2.050"	±.030"
138			2.112"	
139			2.175"	
140			2.237"	
141			2.300"	
142			2.362"	
143			2.425"	
144			2.487"	
145			2.550"	
146			2.612"	
147			2.675"	
148			2.737"	
149			2.800"	
150			2.862"	
151			2.987"	
152			3.237"	
153			3.487"	
154			3.737"	
155	.103"	±.004"	3.987"	±.035"
156			4.237"	
157			4.487"	
158			4.737"	
159			4.987"	
160			5.237"	
161			5.487"	
162			5.737"	
163			5.987"	
164			6.237"	
165			6.487"	
166			6.737"	
167			6.987"	
168			7.237"	
169			7.487"	
170			7.737"	
171			7.987"	
172			8.237"	
173			8.487"	
174	.103"	±.004"	8.737"	±.040"
175			8.987"	
176			9.237"	
177			9.487"	
178			9.737"	
210	.139"	±.005"	.734"	±.020
211			.796"	
212			.859"	
213			.921"	
214			.984"	
215			1.046"	
216			1.109"	
217			1.171"	
218			1.234"	
219			1.296"	

Dash No.	Dimensions			
	W Dia.	Tol.	ID	Tol.
220	.139"	±.005"	1.359"	±.020"
221			1.421"	
222			1.484"	
223			1.609"	
224			1.734"	
225			1.859"	
226			1.984"	
227			2.109"	
228			2.234"	
229			2.359"	
230			2.484"	
231			2.609"	
232			2.734"	
233			2.859"	
234			2.984"	
235	.139"	±.005"	3.109"	±.030"
236			3.234"	
237			3.359"	
238			3.484"	
239			3.609"	
240			3.734"	
241			3.859"	
242			3.984"	
243			4.109"	
244			4.234"	
245			4.359"	
246			4.484"	
247			4.609"	
248			4.734"	
249			4.859"	
250			4.984"	
251	.139"	±.005"	5.109"	±.035"
252			5.234"	
253			5.359"	
254			5.484"	
255			5.609"	
256			5.734"	
257			5.859"	
258	.139"	±.005"	5.984"	±.040"
259			6.234"	
260			6.484"	
261			6.734"	
262			6.984"	
263			7.234"	
264			7.484"	
265			7.734"	
266			7.984"	
267			8.234"	
268			8.484"	
269			8.734"	
270			8.984"	
271	.139"	±.005"	9.234"	±.045"
272			9.484"	
273			9.734"	
274			9.984"	
275			10.484"	
276			10.984"	
277	.139"	±.005"	11.484"	±.050"
278			11.984"	
279			12.984"	
280			13.984"	
281			14.984"	
282			15.955"	
283			16.955"	
284			17.955"	

Application Information

These gaskets are a one-on-one replacement for military "AS" series o-rings. The dash numbers of the gaskets in the table are dimensionally interchangeable with AS568 o-ring dash numbers. Custom size o-rings are also available. Please refer to Custom Gaskets for more information.

Materials

See page 59 for material specifications.

These o-rings are made out of our standard force Enduro-Shield or Flexi-Shield gasket material. The solid core or tubing makes it extremely durable, especially in sliding applications like connectors.

Spiral: Tin/lead plated beryllium copper. (See *Options* for RoHS compliance).
Core: *Flexi-Shield*: **60** durometer silicone tubing. *Enduro-Shield*: cured silicone adhesive.

Shielding Quality

Enduro-Shield or Flexi-Shield O-Rings offer shielding quality from 116 dB to 152 dB. The shielding quality of each type may vary depending on your specific application. Refer to Shielding Quality for more complete performance data.

Compression Force

Enduro-Shield or Flexi-Shield standard O-Rings require approximately 30 pounds per linear inch to compress properly. Optimal compression of the gasket is 25% of the diameter of the spiral.

Available Options

Plating

See page 60 for material compatibility information.

Specify a different spiral material by choosing the desired prefix from the table.

Example:
IWFSOG-B-220
RoHS tin plated Flexi-Shield O-Ring

The gasket is electroplated, 90% tin, 10% lead (edges unplated).
Plating options can be specified by adding a prefix before the part number:

E: Edge tin/lead plating (includes edges) for high humidity or salt-fog environments
IW: RoHS compliant tin plating (Example: **IWSSOG-B-050**)
EIW: RoHS compliant edge tin plating for high humidity or salt-fog

O-Ring	Force	Tin/lead Plating	RoHS Tin	Edge Tin/Lead	RoHS Edge Tin
Enduro-Shield	Standard	SSOG (default)	IWSSOG	ESSOG	EIWSSOG
Flexi-Shield	Standard	FSOG	IWFSOG	EFSOG	EIWFSOG

Core Material

The core for Flexi-Shield O-Rings (***FSOG***) is commercial grade silicone tubing. Fluorosilicone is also available by request.

The standard core for Enduro-Shield O-Rings (***SSOG***) is silicone.
A special core can be requested for SSOG O-Rings (as shown below):

-F: Fluorosilicone (Example: **ESSOG-B-050-F)**
-O: Space Qualified Silicone: non-outgassing (Enduro-Shield only)
-Z: Silicone which is a non-acetic acid adhesive (per MIL-A-46146)

Note: An EMI/Environmental O-Ring is in development. Contact us for details.

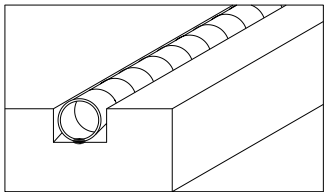
Ordering Information

O-Rings are ordered by the piece. Custom sizes are also available. See page 37.
Not all configurations are stock items. Contact us for availability.

Outer Conductive Spiral: Tin/Lead Plated Beryllium Copper

Resilient Inner Core: Solid Silicone — SSOG or Silicone Tubing — FSOG

Recommended Groove Dimensions		
W Diameter	**Depth**	**Width**
.070"	.053"	.094"
.103"	.077"	.141"
.139"	.104"	.187"



See page 51 for groove mounting techniques.