



**Fluid Sealing
Products, Inc.**

GASKETS • FASTENERS • COATINGS

155 SOUTHBELT INDUSTRIAL DR., HOUSTON, TX 77047
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FLANGE INSULATION KIT FAILURES IN HIGH-TORQUE APPLICATIONS

NEW FSP GUIDELINES FOR FLANGE INSULATION KITS



There is concern of extrusion and cracking of insulation kit sleeve and washer assemblies in high-torque applications

NEW FSP GUIDELINES FOR FLANGE INSULATION KITS

This bulletin is to address the installation problems many have experienced in high-torque applications. Complaints of the Minlon (integral) sleeve assemblies extruding and the cracking of Phenolic type washers in higher pressure flange applications is the issue. When this situation occurs the result is failure of proper flange insulation and or cathodic protection. Fluid Sealing Products has changed it's "guidelines" for these applications.

Our Recommendation

Flanges using 1 1/8" diameter and larger stud bolts, FSP will provide G-10 washers and Mylar sleeving as a standard kit. See specifications for comparison.

Material	Dielectric Strength Volts per Mil of Thk.	Maximum Temperature	Water Absorption	Tensile Strength PSI
Minion	1,200	180	.22	18,900
G-10	800	285-FR4	.15	40,000
Mylar	4,000	300	.8	13,000



The G-10 washers will handle the higher compressive loads as required by the larger diameter bolts and higher pressure rated flanges.

Noted below in blue.



COMPLETED ASSEMBLY

Pipe Size	Pressure Rating						
	150	300	400	600	900	1500	2500
1/2							
3/4							
1							
1 1/4							
1 1/2							
2							
2 1/2							
3							
3 1/2							
4							
5							
6							
8							
10							
12							
14							
16							
18							
20							
24							

* Performance data published on norplex-micarta.com
Your specific application may require other recommendations.

Fluid Sealing

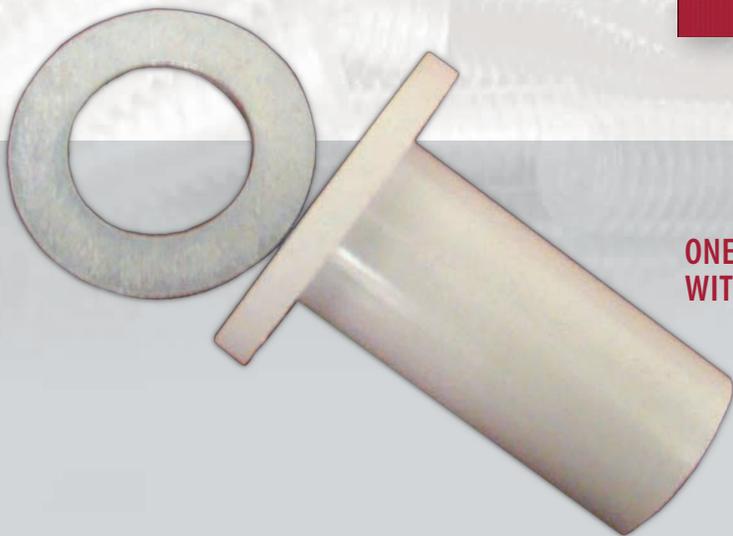
**MYLAR SLEEVE - G-10 WASHER -
PLATED STEEL BACKUP WASHER**



Sleeve & Washer Materials

- Phenolic
- Mylar
- Minlon (one piece sleeve & washer)
- NEMA GRE (glass reinforced epoxy)
- Garlock Non-Asbestos
- Garlock Gylon

Special applications at customers request



**ONE PIECE MINLON (INTEGRAL SLEEVE)
WITH PLATED STEEL BACKUP WASHER**

**FLUID SEALING PRODUCTS WILL
CONTINUE TO MARKET MINLON
SLEEVES IN THE APPROPRIATE
APPLICATIONS AS WELL AS OTHER
MATERIAL COMPONENTS.**

Please contact us for further information. 800.460.1028

PRODUCT LINE SHEET

SPECIALITY FABRICATED

METAL GASKETS

Spiral Wound
 Ring Type Joint (RTJ)
 Petromec (RTJ Rubber Coated)
 Heat Exchanger
 Corrugated Valve Bonnet
 Graphonic and Tephonic Gaskets

DIE CUT GASKETS & SHEET GOODS

Graphite
 Teflon
 Natural & Synthetic Rubber
 Cork
 Phenolic
 Vegetable Fiber
OEM(s): Garlock, Durabla, Klinger

PLATINGS & COATINGS

Cadmium/Zinc
 IMF3W
 Xylan
OEM(s): Aerocote, Whitford

CUSTOM FABRICATED PLASTICS

EXPANSION JOINTS

Rubber
 Teflon
OEM(s): Garlock, Unaflex

Metal
 Flue Duct
OEM(s): Unaflex

STUD BOLTS & FASTENERS

All Sizes & Threads
 B7, B7M, B8, B8M
 Double Ends - Tap Ends
 B16, L7 with Nuts Assembled
 Hex Head Cap Screws
 Machine Bolts
 Special Bent Bolts
 J, L, and U Bolts

LUBRICATION

Compounds
 Sealants
 Lubricants
OEM(s): Jetlube

SPECIALTY ITEMS

FLANGE INSULATION KITS FOR CATHODIC PROTECTION • EXPANSION JOINTS COMPRESSION PACKING

Pikotek Brand Insulation Kits
 Flange Wraps
 Flange End Protectors

Flange Bands with Grease Zerk
 Fittings
 Pipe End Caps



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