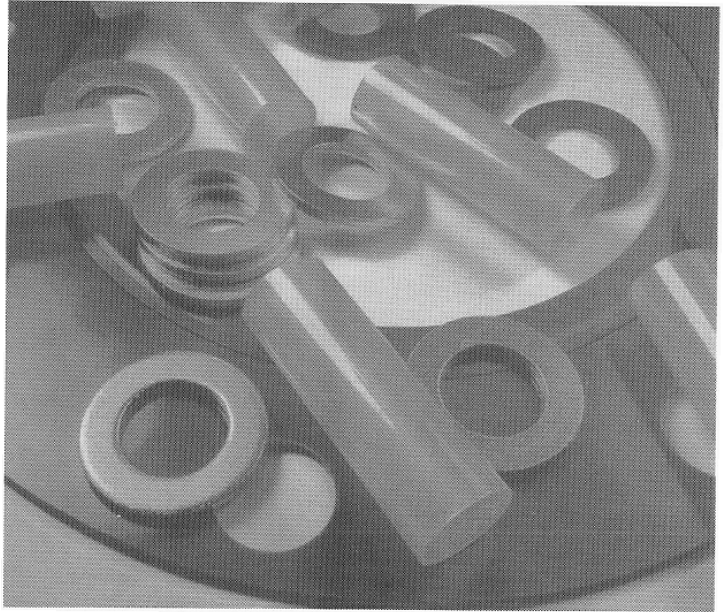




Sealing Gaskets Data Sheet

Type "E" and "F" insulating gaskets with all the necessary sleeves and washers in one kit.



Flat Gasket & Sealing Gasket

Flange Isolation Kits

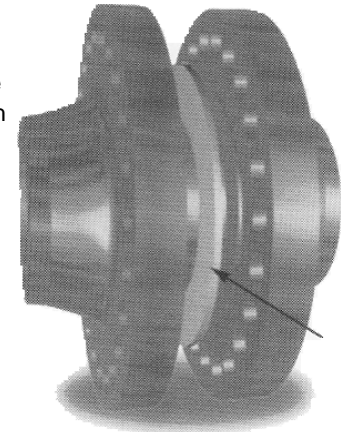
For over 35 years PML has been a technology leader in the field of high quality sealing and isolating products used to guarantee the safe flow of fluids passing through pipeline transmission, distribution and process piping systems.

An installed base of thousands upon thousands of gaskets and flange isolation kits, effectively sealing and maintaining the integrity of corrosion mitigation programmes everywhere, confirms the effectiveness and reliability of the PML system. In fact, PML flange isolation products are relied upon for applications subject to the most severe conditions (both internal and environmental), for specialized or exotic fluids or for applications subject to extreme temperature and pressure fluctuations.

Flange isolation products include a wide selection of isolating/sealing gaskets along with a variety of sleeves and washers. For maximum flexibility, components may be ordered separately or as part of complete flange isolation kits.

Flange isolation kits are available for all flange sizes, types, pressure ratings and materials. Each kit is individually and securely packed in a reinforced corrugated cardboard box, which is clearly labelled as to its contents. Sleeves and washers are enclosed in a strong polyethylene bag to eliminate any possibility of loss. Unless otherwise specified, flange insulation kits will consist of the following:

- One steel washer for each bolt.
- One insulating washer for each bolt.
- One full length insulating sleeve for each bolt.
- One type "E" neoprene faced phenolic gasket.



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Sleeves and Washers

Isolating Sleeves

Isolating sleeves are available in the following materials:

- Mylar
- polyethylene
- phenolic
- Nomex®
- G-7 Silicon Glass
- G-10 Epoxy Glass
- G-11 Epoxy Glass

Designed to easily fit over standard size flange bolts within standard size bolt holes, PSI isolating sleeves have a wall thickness of 0.79mm and are used with separate isolating and steel washers. They are available for standard bolt sizes from 12mm and larger.

Isolating Washers - 3.2mm Thick

Isolating washers are available in the following materials:

- High Strength Glass Clad Phenolic
- G-3 High Temp. Phenolic
- G-7 Silicon Glass
- G-10 Epoxy Glass
- G-11 Epoxy Glass

Designed to provide tough, positive isolation. PSI washers are available for bolt sizes from 12mm and larger and are made to fit over the isolating sleeves.

One-piece Sleeves and Washers

Moulded from acetal resin and available for bolt diameters from 12.7 to 38.1mm, one-piece sleeves and washers are structurally tough but limited to applications where the flange temperature does not exceed +80°C and compressive loads do not exceed 18,000 psi.

They are generally used as single washer sets because they're moulded to specific lengths and, in many instances, are longer than the thickness of a single flange. A washer centring ring positions the steel washer on the unit properly to avoid uneven pressures on the washers.

Steel Washers

Steel washers are designed to fit over the isolating sleeve or the retainer ring on the one-piece sleeves and washers. The outside diameter is sized to fit within the bolt facing on ANSI standard flanges. They are made of 3.2mm thick plated hot-rolled steel.

Gasket Material Options.

Plain Phenolic	Red Devil
Neoprene Faced Phenolic	Yellow Jacket
GasketSeal	Epoxy Glass
LineBacker	

Sleeve Material Physical Properties

ASTM	Test Method	Poly-ethylene	Mylar	Nomex	Phenolic	Silicone Glass G-7	Epoxy Glass G-10	Epoxy Glass G-11	1 Piece Sleeve & Washer
D149	Dielectric Strength Volts/Mil (Short Time)	400	400	400	400	350	400	400	1200
D695	Compressive Strength psi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18,000
D229	Water Absorption %	0.01	08	N/A	1.6	0.10	0.10	0.10	0.22
	Operating Temp. °c	-34 to +82	-59 to +149	-54 to +232	-29 to +107	Cryogenic to +232	Cryogenic to +138	Cryogenic to +160	-34 to +82
D790	Flexural Strength psi	7,000	13,000	20,000	16,000	20,000	55,000	55,000	1,400
	Cut Through Resistance ft-lbs	1,800	3,500	4,000	No Test	No Test	16,000	No Test	3,400

1/8" Washer Material Physical Properties

ASTM	Test Method	Glass Clad Phenolic	High-temp Phenolic G-3	Silicone Glass G-7	Epoxy Glass G-10	Epoxy Glass G-11	1 Piece Sleeve & Washer
D149	Dielectric Strength Volts/Mil (Short Time)	500	550	350-400	550	550	1,200
D695	Compressive Strength psi	33,000	50,000	40,000	50,000	50 - 80,000	18,000
D229	Water Absorption %	1.6	0.07	0.07	0.10	0.10	0.22
	Operating Temp. °c	-59 to +149	-54 to +200	Cryogenic to +232	Cryogenic to +138	Cryogenic to +177	-34 to +82

Performance data and technical information provided herein is intended for guideline purposes only. Suitability of product configurations for specific applications should be determined by the user.

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