

INSULATING FLANGE KITS

Insulation Flange Kits are an ideal solution where discrete electrical sections of pipeline are required for the control and regulation of Cathodic Protection and electrolytic current flow.

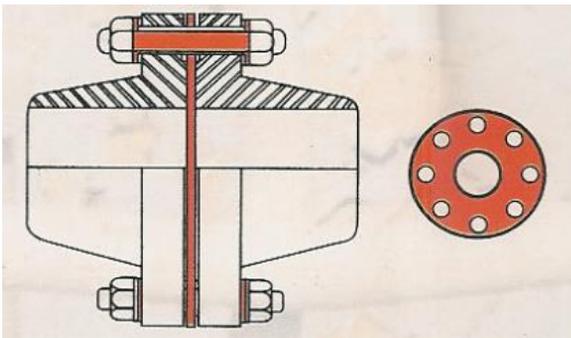
A standard Flange Insulation Kit will comprise as follows

- Gasket
- Insulating Sleeves
- Insulating Washers (2 per bolt)
- Zinc Plated Steel Washers (2 per bolt)

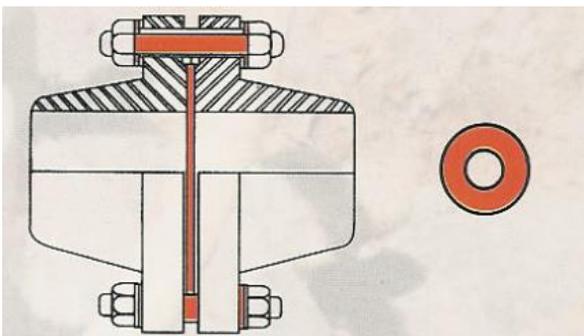
Stud bolts can be added on request,

Gasket Types as follows are available ;

TYPE 'E' For use on flat face & raised face flanges. Insulating gasket manufactured from either reinforced phenolic or high dielectric strength non-asbestos sheeting. Insulating sleeve manufactured from either phenolic, mylar or polyethylene. Insulating washers manufactured from reinforced phenolic.



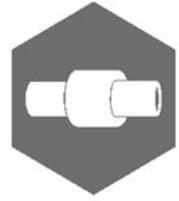
TYPE 'F' The central gasket locates inside the bolts. Insulating gasket manufactured from either reinforced phenolic or high dielectric strength non-asbestos sheeting. Insulating sleeve manufactured from either phenolic, mylar or polyethylene. Insulating washers manufactured from reinforced phenolic.



DATASHEET

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INSULATING FLANGE KITS



BAC[®]

CORROSION CONTROL

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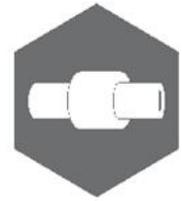
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MATERIAL INFORMATION

Central Gasket in Neoprene Faced Phenolic

Neoprene faced phenolic resin sheet. Rubber thickness of 0.4mm on each face of phenolic sheet thickness 2.4mm, to NEMA L1-1-1983, Type XPC, with the following properties.

Dielectric Strength in oil @ 23°C	500 Volt/mil (20,000 Volts/mm)
Water absorption after 24 hours immersion in water @ 23°C	0.60%
Compressive strength @ 23°C	168 N/mm ²
Maximum continuous operating temperature	100°C
Insulation resistance	1.2 x 10 Megohms

Phenolic Washers

Bakelacqu Cotton Fabric Reinforced Laminate Grade B12 Phenolic Resin

Flexural Strength	120 Mpa
Impact Strength (Notched Charpy)	10.0 kJm ²
Tensile Strength	80 Mpa
Electric Strength perpendicular to laminations in oil @ 90°C (Rapidly applied)	3 MV/m
Electric Strength perpendicular to laminations in oil @ 90°C (Step by Step)	2 MV/m
Breakdown Voltage parallel to laminations in oil @ 90°C	12 kV
Insulation resistance after 24 hours water immersion	2 GΩ
Comparative Tracking Index	110 V
Thermal classification continuous**	115°C
Thermal classification intermittent	125°C
Water Absorption after 24 hours immersion	85 mg
Density	1.35 g/cm ³
Specific Volume	741 cm ³ /kg
Colour	Brown

*** Figures given are for guidance only and assume use of material in air*

Mylar Sleeves

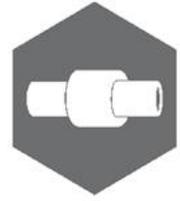
Dielectric Strength - ASTM D149	4000 Volts/mil
Compressive Strength - ASTM D695	N/A
Water Absorption - ASTM D229	0.80%
Operating Temp °F	-75 to +300
Operating Temp °C	-59 to +149

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MATERIAL INFORMATION

Flexural Strength - ASTM D790
Cut Through Resistance

13000 psi
3500 ft-lbs

Phenolic Sleeves

Axial electric strength in oil @ 90°C

Water Absorption

Cohesion between Layers

Insulation resistance after immersion in water

Axial Compressive Strength

Electric strength normal to axis in oil @ 90°C (1.6mm wall)

Relative Density

Thermal Classification

30 kV
3.5 mg/cm²
70 Mpa
50 Mohms
100 Mpa
7.8 MV/m
1.20
E

Steel Washers

Zinc Plated BS4320 (43A)



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