

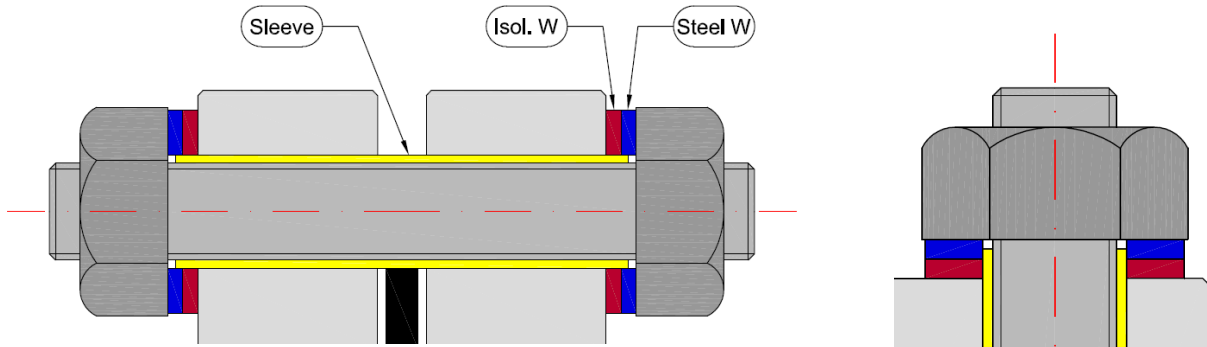
Guardian Basic ICSF

Guardian Basic ICSF Insulation Kit is designed for general applications where electrical flange isolation and Galvanic corrosion control are required on pipes containing medias which are compatible with CSF material. The standard design is single washer. Available for flat face or raised face flanges the ICSF insulating gasket system consists of a:

- GASKET - Suitable only for ANSI Classes 150 ÷ 300 psi and ISO PN 2.5 ÷ 40
 - Compressed fibres gasket style Planiflex PF64 thickness 3.00 mm
- SLEEVES thickness 0.90÷1.10 mm
 - GRE G10 (FR4)
- WASHERS thickness 3.00 mm
 - GRE G10 (FR4)
 - Zinc Plated Carbon Steel

*Other combinations of sleeves / washers are available on demand

Retainer CSF Gasket PLANIFLEX PF 64 Properties				
Typical value thickness 2.0 mm				
Dielectric Strenght	KV/mm	20		
Compressibility ASTM F36	%	8		
Recovery ASTM F36	%	55		
Relaxation stress DIN 52913	N/mm²			
16 hours, 300°C, 50 N/mm²		22		
16 hours, 175°C, 50 N/mm²		28		
Tensile strength DIN 52910	N/mm²	11		
Gas permeability DIN 3535/4	mg/s m	0.05		
Thickness increase ASTM F146	%			
1) Oil IRM 903, 5h, 150°C		5		
2) ASTM Fuel B, 5h, 23°C		5		
Max operating conditions				
Peak Temperature	°C / °F	350 / 662		
Continuous Temperature	°C / °F	250 / 482		
Continuous Temperature with Steam	°C / °F	220 / 392		
Pressure	Bar / psi	100 / 1450		
Sleeve Features	G10 (FR4)		Washer features	G10 (FR4)
Dielectric Strenght KV/mm Short Time	29,0 ÷ 31,5		Dielectric Strenght KV/mm Short Time	29,0 ÷ 31,5
Water Adsorption (%)	0,1		Water Adsorption (%)	0,1
Flexural Strenght (MPa)	400		Compressive Strenght (MPa)	450
Cut Through Resistance	low		Cut Through Resistance	low
Temperature - Operating	-150°C ÷ 150°C		Temperature - Operating	-150°C ÷ 150°C
The grids shows the average values of the G10 (FR4) material properties				



INSULATION KIT DIMENSIONAL TABLE for flange acc.to ANSI B16.5 Schedule STD

Rating	DN	Gasket			Bolts		Washers		Sleeves		
		ext Type "F"	ext Type "E"	Int	Q.tà	Size	Dext	Dint	Dext	Dint	H
#150_	1/2	43,8	89	15,8	4	1/2	28,5	16	15	13,4	38,4
	3/4	53,3	98	20,95	4	1/2	28,5	16	15	13,4	41,4
	1	62,9	108	26,65	4	1/2	28,5	16	15	13,4	44,6
	1.1/4	72,4	118	35,05	4	1/2	28,5	16	15	13,4	47,8
	1.1/2	81,9	127	40,9	4	1/2	28,5	16	15	13,4	51
	2	101,1	152	52,5	4	5/8	33,5	19	18	16,4	54,2
	2.1/2	120,2	178	62,7	4	5/8	33,5	19	18	16,4	60,6
	3	132,9	191	77,9	4	5/8	33,5	19	18	16,4	63,8
	3.1/2	158,3	216	90,1	8	5/8	33,5	19	18	16,4	63,8
	4	171	229	102,25	8	5/8	33,5	19	18	16,4	63,8
	5	193,4	254	128,2	8	3/4	40	22	21	19,4	63,8
	6	218,8	279	154,05	8	3/4	40	22	21	19,4	66,8
	8	275,9	343	202,7	8	3/4	40	22	21	19,4	73,2
	10	336,4	406	254,5	12	7/8	44,5	25	24	22,4	76,4
	12	406,3	483	304,8	12	7/8	44,5	25	24	22,4	79,6
	14	447,7	533	336,55	12	1	51	28	27	25,4	86
	16	511,2	597	387,35	16	1	51	28	27	25,4	89,2
	18	545,3	635	438,15	16	1.1/8	55,5	32	31	29,4	95,4
#300_	20	602,5	699	488,95	20	1.1/8	55,5	32	31	29,4	101,8
	24	713,8	813	590,55	20	1.1/4	62	35	34	32,4	111,4
	1/2	50,5	95	15,8	4	1/2	28,5	16	15	13,4	44,6
	3/4	63,5	118	20,95	4	5/8	33,5	19	18	16,4	47,8
	1	69,5	124	26,65	4	5/8	33,5	19	18	16,4	51
	1.1/4	78,5	133	35,05	4	5/8	33,5	19	18	16,4	54,2
	1.1/2	91,5	156	40,9	4	3/4	40	22	21	19,4	57,4
	2	107,5	165	52,5	8	5/8	33,5	19	18	16,4	60,6
	2.1/2	126,5	191	62,7	8	3/4	40	22	21	19,4	66,8
	3	145,5	210	77,9	8	3/4	40	22	21	19,4	73,2
	3.1/2	161,5	229	90,1	8	3/4	40	22	21	19,4	76,4
	4	177,5	254	102,25	8	3/4	40	22	21	19,4	79,6
	5	212,5	279	128,2	8	3/4	40	22	21	19,4	86
	6	247,5	318	154,05	12	3/4	40	22	21	19,4	89,2
	8	304,5	381	202,7	12	7/8	44,5	25	24	22,4	98,6
	10	358,5	445	254,5	16	1	51	28	27	25,4	111,4
	12	418,5	521	304,8	16	1.1/8	55,5	32	31	29,4	117,6
	14	481,5	584	336,55	20	1.1/8	55,5	32	31	29,4	124
	16	536,5	648	387,35	20	1.1/4	62	35	34	32,4	130,4
	18	593,5	711	438,15	24	1.1/4	62	35	34	32,4	136,8
	20	650,5	775	488,95	24	1.1/4	62	35	34	32,4	143
	24	771,5	914	590,55	24	1.1/2	73	41	40	38,4	155,8