

SIGRAFLEX® Flat Gaskets

Recommended Surface Roughness R_z for Sealing Surfaces

SIGRAFLEX® flat gaskets consist of graphite foils reinforced with stainless steel foils. Tests with these materials on metallic surfaces of 3 to 160 μm surface roughness demonstrate that the roughness of the flange surface has little to no impact on the tightness of the connection. (The majority of flange connections feature a surface roughness of ca. 40 μm .)

This performance can be explained by the high compressibility and the good adaptability of the SIGRAFLEX® material.

With an initial thickness of e.g. 2 mm, SIGRAFLEX® HOCHDRUCK PRO and SIGRAFLEX® UNIVERSAL PRO approximately exhibit the values shown in the table with regard to residual thickness in the mounted state.

Values of residual thickness in the mounted state.

		SIGRAFLEX® HOCHDRUCK PRO	SIGRAFLEX® UNIVERSAL PRO
Thickness	mm	2.0	2.0
Compressed thickness at 20 N/mm ² surface pressure	mm	1.4	1.25
Compressed thickness at 140 N/mm ² surface pressure	mm	1.15	1.0

Owing to the good deformability of the sealing compound resp. the good adaptability of the material surface of these graphite gasket materials, the specified thickness variations of 0.6 to 1.0 mm are sufficient to compensate for even greater flange roughness and - depending on mounting conditions and gasket thickness – also uneven flanges.

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