

Flexigraf® Unigraph®

Graphite based sheets



PLANICHEM
SICHEM SOLUTIONS



Planichem is an Italian manufacturing company specialised in the processing of PTFE, graphite and all the main asbestos-free materials used for the production of gasketing materials, gaskets and semi finished products of high technical value.

The company's current structure has resulted from progressive developments over the years which have led to the engineering of unique processing and manufacturing methods.

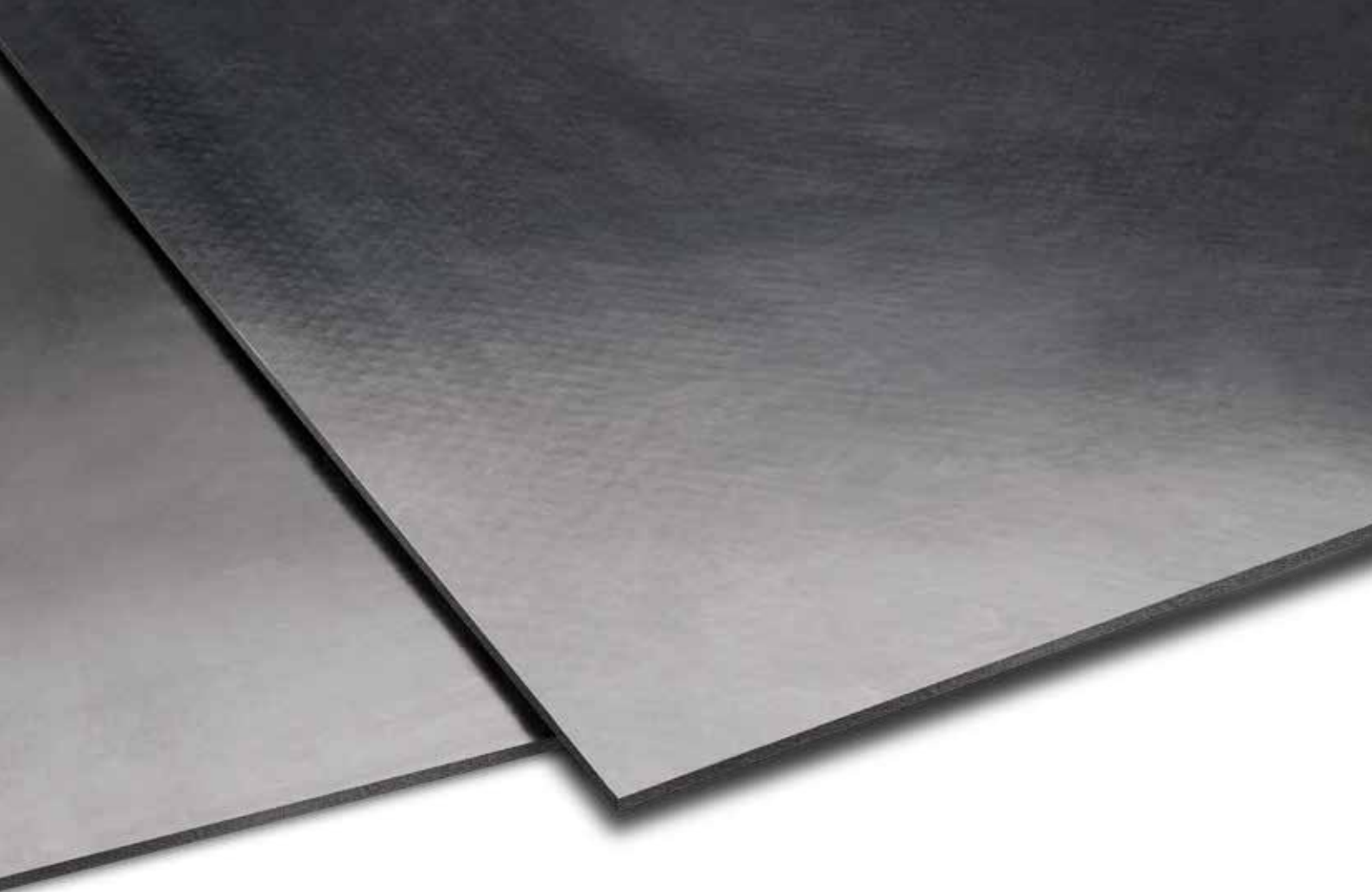
Planichem manufactures leading-edge products and innovative solutions which are protected by international patents.

Planichem's underlying goal is to provide the best quality, as certified by all major independent examination institutes.

Our products are our best guarantee suitable for all types of customers and applications, both standard and critical.

For a detailed list of the approvals, please visit our dedicated area on www.planichem.com





Planichem has developed two families of graphite-based products manufactured with different grades of graphite in terms of purity and sulphur contents, which are able to seal a wide range of chemicals at extreme temperatures and pressures. All our products are available with added corrosion and oxidation inhibitors.

Flexigraf® FGS is the range of products based on high purity graphite laminate reinforced with stainless steel, nickel, aluminium, and many other materials. This product family is particularly suitable for the sealing of saturated steam at high temperature and of aggressive non-oxidising chemical agents, up to 700° C and pressures of 200 bar.




MULTIFLEX is the multilayers solution which endows this material with excellent resistance up to a pressure of 300 bar.

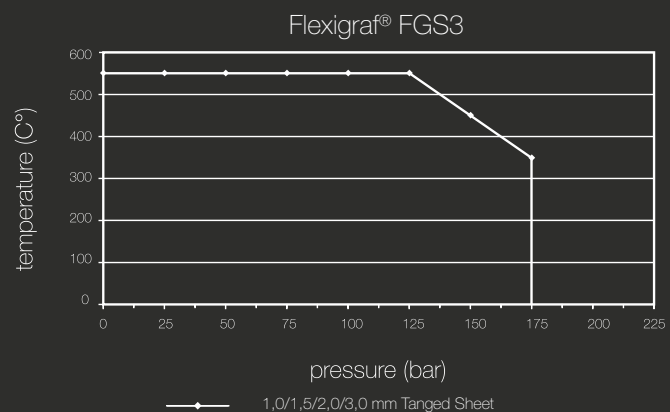
Unigraph® is the family of products based on high purity graphite which are available in different densities, compressed and coated with special technopolymers to withstand high temperatures.







This product family offers exceptional ease of processing and cutting and is suitable for the sealing of saturated steam even at high temperature and of aggressive non-oxidising chemical agents, up to of 650° C and pressures of 1 20 bar.

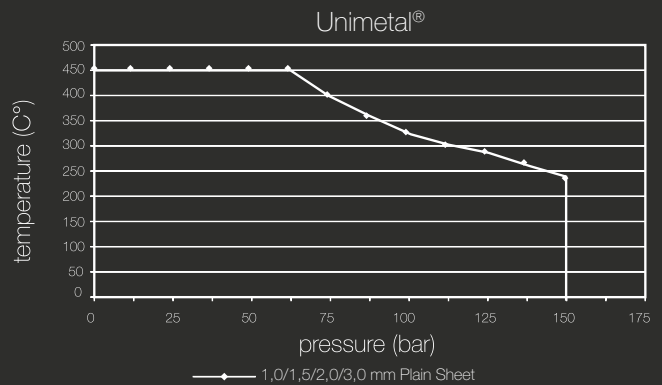
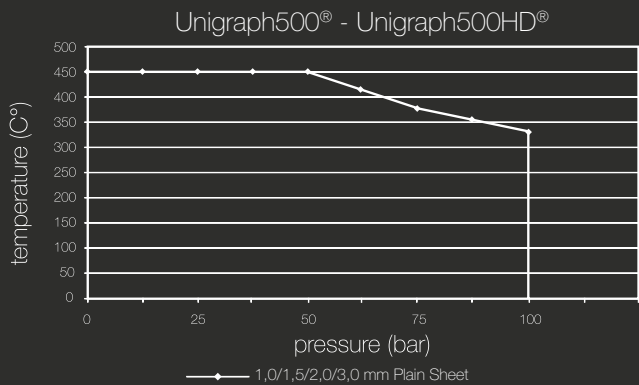
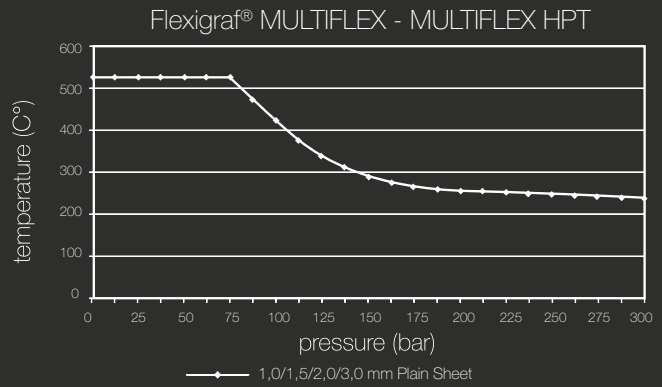
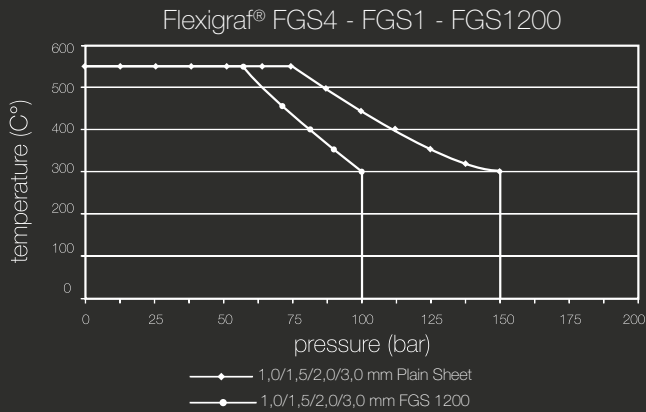


Flexigraf® and Unigraph® graphite based gasketing materials suitable for demanding applications at higher temperatures.

FLEXIGRAF®	FGS3	FGS4	FGS1
Colour			
Composition	Graphite laminate reinforced with a tanged stainless steel core	Graphite laminate reinforced with a flat stainless steel core	Graphite laminate reinforced with a pure nickel foil core
Density DIN 28090-2 (g/cm ³)	1,2 - 1,5	1,15 - 1,45	1 - 1,2
Min/Max recommended Peak Temperature (°C)	-200/+550	-200/+550	-200/+550
Max operating pressure (Bbar)	200	150	150
Leakage DIN 3535-6 (mg*s-1*m-1)	≤ 0,1	≤ 0,1	≤ 0,1
Creep relaxation DIN 3535-6 (%)	≤ 5	≤ 5	≤ 5
Conformability DIN 3535-6 (%)	30 - 45	30 - 45	30 - 45
Recovery DIN 3535-6 (%)	3 - 7	3 - 7	3 - 7
Availability			
Sheets size (mm)	1.500x1.500 1.000x1.000 1.500x1.000	1.500x1.500 1.000x1.000 1.500x1.000	1.500x1.500 1.000x1.000 1.500x1.000
Thickness (mm)	0,5 to 3	0,5 to 3	0,5 to 3
Tolerances			
Sheets size (mm)	+/- 50	+/- 50	+/- 50
Thickness (%)	+/- 10	+/- 10	+/- 10



FGS1200	MULTIFLEX	MULTIFLEX HPT	UNIGRAPH 500	UNIGRAPH 500 HD	UNIMETAL
					
Graphite laminate reinforced with a pure aluminium alloy core	Graphite laminate reinforced with a flat stainless steel multilayers core	Graphite laminate reinforced with a tanged stainless steel multilayers core	Graphite based with polymer coating both sides	Graphite based with polymer coating both sides	Graphite based wire mesh reinforced with polymer coating both sides
1 - 1,2	1,3 - 1,6	1,4 - 1,6	0,9 - 1,1	1,3 - 1,5	0,9 - 1,1
-200/+550	-200/+550	-200/+550	-200/+450	-200/+450	-200/+450
100	300	300	100	100	150
≤ 0,1	≤ 0,1	≤ 0,1	≤ 0,1	≤ 0,1	≤ 0,1
≤ 5	≤ 5	≤ 5	≤ 8	≤ 8	≤ 8
30 - 50	30 - 45	30 - 45	40 - 50	25 - 35	40 - 50
3 - 7	3 - 7	3 - 7	3 - 7	3 - 7	3 - 7
1.500x1.500 1.000x1.000 1.500x1.000 0,5 to 3	1.500x1.500 1.000x1.000 1.500x1.000 1 to 6	1.500x1.500 1.000x1.000 1.500x1.000 1 to 6	1.500x1.500 1.500x1.000 0,5 to 3	1.500x1.500 1.500x1.000 0,5 to 3	1.500x1.500 1.500x1.000 0,5 to 3
+/- 50 +/- 10	+/- 50 +/- 10	+/- 50 +/- 10	+/- 50 +/- 10	+/- 50 +/- 10	+/- 50 +/- 10



Other sheet sizes and thicknesses available upon request.
Maximum temperature and pressure values cannot be used simultaneously.
Typical parameters of 1.5 mm thickness jointing.



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