

## Flexible Graphite

Homogeneous, 316SS Foil Insert  
316SS Tang Insert, 316SS Multilayer



Nominal Thickness*	Sheet Sizes	
	in.	mm
1/32" (0.8mm)	39.4 x 39.4	1,000 x 1,000
	59.1 x 59.1	1,500 x 1,500
1/16" (1.5mm)	39.4 x 39.4	1,000 x 1,000
	59.1 x 59.1	1,500 x 1,500
1/8" (3.0mm)	39.4 x 39.4	1,000 x 1,000
	59.1 x 59.1	1,500 x 1,500

\*More thicknesses available by special order, depending on material.

**Note:** ASTM properties are based on 1/16" sheet thickness, except ASTM F38 which is based on 1/32" sheet thickness. This is a general guide only and should not be the sole means of accepting or rejecting this material. The data listed here falls within the normal range of product properties, but should not be used to establish specifications limits nor used alone as the basis of design. For applications above Class 300, contact our technical department.

**Warning:** Durlon® gasket materials should never be recommended when both temperature and pressure are at the maximum listed. Properties and applications stated are typical. No applications should be undertaken by anyone without independent study and evaluation for suitability. Never use more than one gasket in one flange joint and never reuse a gasket. Improper use or gasket selection could cause property damage and/or serious injury. Data reported is a compilation of field testing, field service reports and/or in-house testing. While the utmost care has gone into publishing the information contained herein, we assume no responsibility for errors. Specifications and information contained within are subject to change without notice. This edition cancels and obsoletes all previous editions.

Durlon® Flexible Graphite is unaffected by heat over a wide range of temperatures. It exhibits low electrical resistivity and high thermal conductivity and is suitable for cryogenic temperatures and is available in several styles.

These include homogeneous sheet and laminated styles with various types of core materials. Durlon® Flexible Graphite can also be special ordered with various inhibitors, grades of graphite, and core materials to suit specific critical applications.

### INDUSTRY APPLICATIONS:

- Chemical Processing
- General Industry
- OEM Services
- Oil & Gas
- Petrochemical
- Power Generation
- Refining

### CHARACTERISTICS AND BENEFITS:

- Impermeable to gases and liquids
- Suitable for service over a wide range of pressures and temperatures
- Resists thermal shock
- Maintains excellent sealability
- Does not age, shrink or harden
- Seals easily under low to moderate bolt loads
- High chemical resistant



**FGS95:** Standard industrial grade sheet containing no binders or resins. Mainly used in industrial applications such as oil refineries, power plants and chemical process plants.

FGS95 - Physical Properties	
Temp.: Min	-260°C (-450°F)
Max, in air	454°C (850°F)
Max, in steam	650°C (1,200°F)
Pressure, max, bar	207 (3,000 psi)
Compressibility, % ASTM F36	35-40
Recovery, % ASTM F36	20
Creep Relaxation, % ASTM F36	5
Ignition Loss, % @ 454°C (850°F) @ 650°C (1200°F)	1 8
Sealability, ASTM F2378	0.4 cc/min
ASTM F104 & F868 Line Call Outs	F104-F517000B1M3
Carbon Content	≥ 98%



**FGL316:** Standard industrial grade sheet laminated with an adhesive bond on both sides of a 0.002” thick 316 stainless steel foil core. This product is used where high performance and handling are important.



**FGT316:** Standard industrial grade sheet mechanically bonded on both sides of a 0.004” thick 316 stainless steel tang core. This product is used where stresses and pressures are high and improved handling is important.



**FGM316:** Inhibited grade sheet laminated with multiple layers of 0.004” thick 316 stainless steel foil core. This product is used in applications with high mechanical stress or pressure, above average burst resistance, exceptional rigidity, and suitable to cut gaskets with narrow strips.

FGL316 - Physical Properties	
Temp.: Min	-260°C (-450°F)
Max, in air	454°C (850°F)
Max, in steam	650°C (1,200°F)
Pressure, max, bar	207 (3,000 psi)
Compressibility, % ASTM F36	35-40
Recovery, % ASTM F36	18
Creep Relaxation, % ASTM F36	5
Ignition Loss, % @ 454°C (850°F)	1
@ 650°C (1200°F)	6
Sealability, ASTM F2378	0.4 cc/min
ASTM F104 & F868 Line Call Outs	F868-9FMF2
Carbon Content	≥ 98%

FGT316 - Physical Properties	
Temp.: Min	-260°C (-450°F)
Max, in air	454°C (850°F)
Max, in steam	650°C (1,200°F)
Pressure, max, bar	207 (3,000 psi)
Compressibility, % ASTM F36	35-40
Recovery, % ASTM F36	20
Creep Relaxation, % ASTM F36	5
Ignition Loss, % @ 454°C (850°F)	1
@ 650°C (1200°F)	6
Sealability, ASTM F2378	0.8 cc/min
ASTM F104 & F868 Line Call Outs	F868-9FMF1
Carbon Content	≥ 98%

FGM316 - Physical Properties	
Temp.: Min	-260°C (-450°F)
Max, in air	550°C (1,022°F)
Max, in steam	650°C (1,200°F)
Pressure, max, bar	250 (3,625 psi)
Compressibility, % ASTM F36	30-40
Recovery, % ASTM F36	10-15
Creep Relaxation, % ASTM F36	5
Ignition Loss, % @ 454°C (850°F)	<1
@ 650°C (1200°F)	<3
Sealability, ASTM F2378	0.4 cc/min
ASTM F104 & F868 Line Call Outs	F868-9FMF2
Carbon Content	≥ 98%