

FLEXICARB® ST is a metal reinforced graphite laminate made by mechanically bonding industrial grade graphite to a 0.004" thick 316SS tang insert. No binders or resins are present in the graphite which is typically 97% pure and contains less than 50 ppm leachable chlorides. The values below are typical for 1/16" thick material. Note: Graphite is susceptible to oxidation.

Service	Max T @ minimum thickness	842°F (450°C)
	Max P	+ 2000 psi (140 MPa)
	pH Range	0 - 14

Physical Properties	Color	Dark Gray
	Density (facing only)	70 lb/ft³ (1.1 g/cc)
	Sheet Thickness	1/16" - 1/8" (150 mm - 3.20 mm)
	Sheet Size	60" x 60" (1.50 m x 1.50 m)

Mechanical Properties (ASTM F152)	Cross Grain Tensile	650 psi (4.5 MPa)
	With Grain Tensile	N/A

Sealing Properties	ASTM F36	Compressibility	38%
		Recovery	16%
	ASTM F37A	Fuel A @ 10 psi & 1000 psi Gasket Stress	<0.5 mL/hr.
	ASTM F38	Creep Relaxation	<5%
	DIN 3535	Nitrogen Gas Permeability	3.1 mL/min.

Design Information	Gasket Constants	m	2
		y	2500 psi (17.00 MPa)
	Recommended Surface Finish	125 - 250 µin (3.2 - 6.3 µm)	
	PVRC Constants	Gb	1400 psi (9.7 MPa)
		a	0.32
Gs		0.01 psi (0.00007 MPa)	

Major Manufacturing Plants

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