



Product Data Sheet - Flexicarb LS

Product Characteristics

Graphite Composition

- Resistant to a wide range of temperatures
- Resistant to a wide range of pressure changes.
- Resistant to fluids with pH range of 0-14, except strong oxidizers.
- Excellent weather and aging characteristics.
- Low creep relaxation.
- Seals easily under moderate bolt loads.

Inserts

- Reduces gasket damage in handling and installation.
- Extra strength when narrow cross section gasketing is required.
- Useful for higher pressures.

No Binders

- Eliminates potential fluid contamination from binder residue.
- No gaseous decomposition products.

Variety of Densities and Sizes

- Useful for a wide range of applications.

Chemical Resistance

- Chemically resistant to a wide variety of materials. Call for specific application or comprehensive resistance chart.

Typical Properties

Property	Units	Value
Bulk Density	lb/ft ³ (gm/cc)	70.0 (1.1)
Thermal Conductivity		
"a" Direction (parallel to surface)	BTU-in/hr-ft ² °F	1532
"c" Direction (normal to surface)	BTU-in/hr- ft ² °F	48
Thermal Expansion		
70-1800°F (bulk density 1.7-1.9gm/cc)	10 ⁻⁶ /°F	2.8-4.4
Hardness (Shore Scleroscope)		
At 1.0 gm/cc	-	30
At 1.3 gm/cc	-	40
Tensile Strength		
At 1.1 gm/cc and .015" foil	psi	700 min.
Permeability		
Air	Cm ² /gm	<0.00002
Emissivity		
At 932°F	-	04
Sublimation Temperature		
(does not melt)	°F	6600
Compression		
		40%
Recovery		
		20%
Creep Relaxation		
		<5%

Performance Advantages

- Non-toxic
- Excellent thermal stability
- Highly anisotropic
- Very low thermal expansion characteristics
- Low electrical resistivity
- Low coefficient of friction
- High thermal conductivity
- Low modulus of elasticity, highly flexible
- Easy conformability to surface irregularities
- Non-abrasive
- Low gas permeability
- Nuclear certifiable, high purity
- Chemically inert

Specifications

Temperature, min.	-400°F / -240°C
Temperature, max.	842°F / 450°C
M-factor, stress	2
Y-factor, psi	1000
Maximum Stress	25,000 psi
pH Range	0-14 (few exceptions)
Standard Sheet Thicknesses**	1/16", 1/8"
Standard Sizes**	
Sheets	Homogeneous & Laminated 40"x 40", 60"x 60"
Densities**	0.7 to 1.4 gm/cc
**Other thicknesses, sizes and densities available.	