



Innovations in Fluid Sealing



## TECHNICAL DATA SHEET

### INGRAF PLAIN WITH SS FOIL INSERT INMARCO TYPE SSF 321

#### Description:

**TYPE SSF 321** sheet is manufactured from plain SS sheet sandwich between two layers of flexible pure graphite sheet.

**TYPE SSF 321** SS sheet insert graphite gaskets are suitable for metallic, glass, enamel flanges and are designed for trouble free change over which ultimately reduces maintenance cost. They are dimensionally stable under extreme pressure surge. These are also suitable for cryogenic services.

#### Operational Parameters:

DESCRIPTION	VALUES
pH RANGE	0-14
TEMPERATURE (°C)	Min. -200 to max. +650
PRESSURE (BAR)	500
THICKNESS (mm)	1 to 6

#### Advantages:

- ❖ Reinforcement of SS plain sheet increases mechanical strength of the gasket.
- ❖ Chemical properties of flexible pure graphite remain intact.
- ❖ Resistant to almost all non-chemicals.
- ❖ Good compressibility and recovery, hence seals perfectly.
- ❖ Does not age or creep under hot or cold working conditions.

#### Typical Applications:

Any type of Pipe flanges, Valve bonnets & Heat exchangers.

#### Service Media:

Super heated and saturated steam, All non-oxidising liquids and gases, Hydrocarbon, Oxygen services, Cryogenic services, Dyes and chemicals, Fuel and lube oil etc.

#### Availability:

Sheet size : 1000mm x 1000mm  
: 1500mm x 1500mm

Specification:

<b>PROPERTIES</b>	<b>VALUES</b>
Carbon content	99% to 99.9%
Sulphur content	Less than 500ppm
Chloride content	Less than 30ppm
Ash content	Less than 1%
Bulk Density	1.1gms/cc to 1.4gms/cc
Tolerance on density	±0.05g/cc
Thickness of sheet	1mm ~ 6mm
Thickness of Reinforcement	0.05mm ~ 0.1mm
Tolerance on thickness	±0.1mm ~ 0.25
ASTM F36	
Compressibility	35-40 %
Recovery	15-18%
“m” factor (3mm thick)	2.8
“y” factor (psi)	4700
ASTM F38	
Creep relaxation	5%
Ignition loss %	
@ 850°F (454°C)	1
@ 1200°F (650°C)	8
ASTM F37, Sealability	
Fuel A, mL/hr	0.5
Nitrogen, mL/hr	2.0
DIN 3535-Gas	
Permeability	0.40
Nitrogen, cc/min	
Temperature (°C)	-200 to 3315 in reducing condition +600 in oxidizing condition +650 in steam
Pressure (BAR)	Vacuum 28Hg to 300

All information and recommendations given in this technical data sheet are correct to the best of our knowledge. However, in view of the wide variety of application and operating conditions one cannot draw the final conclusion in all application cases regarding the behavior of compounds. The above information can only serve as a guideline.

**INMARCO FZC**

P.O. Box 120284, Sharjah Airport International Free Zone (SAIF-Zone), Sharjah, UAE

Tel. No.: +971 6 5578378 Fax No.: +971 6 5578948

Email: [info@inmarco.ae](mailto:info@inmarco.ae) Web.: [www.inmarco.ae](http://www.inmarco.ae)