



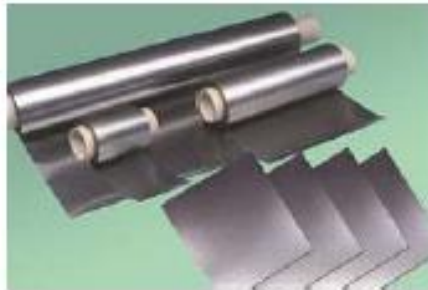
Nexus Pump and Valve Packing

DATA SHEET

Nexus Style 1100 Graphite Foil

Description

Style 1100 Graphite Foil is made from high quality natural graphite flake. The Natural graphite flake is chemically treated to form a Graphite Intercalation Compound. This intercalation compound is then rapidly heated to decomposition; the result is a rapid expansion of the particle size. The bulk density of the wormlike graphite powders is about 0.003g/cc. The graphite powders are formed into graphite foil by rolling the powders. No binders are used in the process of making the expanded graphite foil. The foil is then cut to the required width.



Specification

| | | |
|-----------------------|-------------------|----------------------|
| Standard bulk density | g/cm ³ | 0.7 - 1.2 |
| Ash content | % | ≤1 |
| Chloride content | ppm | ≤50 |
| Foil thickness | mm | 0.15 – 1.0 |
| Roll width | mm | 500/1000/1500/2000 |
| Tape width | mm | ≥ 4mm |
| Roll length | m | 25/50/75/100/300/500 |

Technical data of Nexus 1100 Graphite Foil with bulk densities of 0.7 g/cc

| | |
|----------------------------------|---|
| Purity | 99 % |
| Sulphur Content max. ASTM C-816 | 1000 ppm |
| Bulk Density | 0.7 g/cc ASTM C-559 |
| Ash Content ASTM C561 | Less than 1% ASTM C561 |
| Leachable Chloride | 50 ppm max. ASTM D-512 |
| Fluorides | 50 ppm max. ASTM D-512 |
| Temperature Range | -200°C to +3300°C Non-Oxid -200°C to + 500°C Oxidizing -200°C to + 650°C Steam |
| Tensile Strength | 998 Psi |
| Stress Relaxation | DIN 52913-48 N/mm ² |
| Shore Hardness (D) | 30 |
| Creep Relaxation | At 100°C ASTM F-38 <5% |
| Sealability ml/h fuel A | <0.2 to 0.5 ASTM F-37B |
| Electrical Resistance | 900 x 10 ⁻⁶ ohm cm parallel to surface 250,000 x 10 ⁻⁶ ohm cm perpendicular to surface |
| Thermal Conductivity | 120 Kcal/m Hr.°C parallel to surface 4 Kcal/m Hr.°C perpendicular to surface |
| Coefficient of Thermal Expansion | 5 x 10 ⁻⁶ /°C parallel to surface 2 x 10 ⁻⁶ /°C perpendicular to surface |
| Ignition Loss | Less than 1% (450°C/1Hr) Less then 20% (650°C/1Hr) |
| Operating Pressure | 140 bar (2058 p.s.i) |
| Resilient Rate | More than 30% |
| Compressibility | 40 to 45 % ASTM F36A-66 |
| Recovery | 20 to 40 % ASTM F36A-66 |
| ASTM "m" factor | 2 |
| ASTM "y" stress | 1500 Psi |
| Sliding-Frictional Coefficient | 0.149 |
| Permeability Coefficient for air | Less than 10 ⁻⁵ cm ² /sec perpendicular to surface |
| PH Range | 0 to 14 |