



## Nexus Pump and Valve Packing

### DATA SHEET



### **Nexus Style 4100 Tape**

#### **Description**

Style 4100 tape is corrugated Graphite with different widths as required. The rolls are cut to a standard 15m length for ease of use. The corrugation makes the tape more flexible and less prone to tear.

#### **Construction**

Style 4100 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 and corrugated for ease of handling.

#### **Application**

This product is ideally suited for both pump and valve applications as well as for flange gaskets. Especially useful as die-formed rings, in-situ packing rings and high-pressure bonnet seals in almost every application. This product can substitute the need for braided packing. Forms part of any emission reduction program in valves as well as water reduction programmes in pumps.

#### **Specification**

<u>Item</u>	<u>Unit</u>	<u>Magnitude</u>	
Tolerance of density	g/cm <sup>3</sup>	≤ ± 0.05	
Tolerance of thickness	mm	≤ ± 0.03	
Carbon content	%	98 ~ 99.9	
Tensile strength	MPa	≥ 3.5	
Compressibility	%	> 40	
Recovery	%	> 10	
Sulphur content	ppm	≤ 1000	
Chlorine content	ppm	≤ 50	
Ignition Loss: 450°C/1h 600°C/1h	%	≤ 1.0 ≤ 20	
Volumetric Density	g/cm <sup>3</sup>	0.7 ~ 1.2	
Working Temperature	°C	-200 ~ +450 (Oxidising) -200 ~ +650 (Non-oxidising)	
Pressure	bar	30 300	Rotary (Pumps) Stationary (Valves)
Shaft Speed	m/sec	20	
Friction Factor		<0.18	