

CPI 518

Valve Disc Material

CPI 518 is a proprietary phenolic/ fabric composite material. The orientation of the woven fibres within this material offer excellent stiffness and torsional rigidity characteristics. These properties make it a consideration for valve plate applications in lubricated or non-lubricated compressors.

The low temperature characteristics for this material may make it a suitable choice for cryogenic applications.

CPI 518 should not be selected for higher speed applications or those with exposure to strong acids or alkalis. Alternative CPI grades are available for these services.

CPI should be consulted for the proper design and application of its specialized products and materials. For further advice and technical support please contact CPI directly.



Typical properties	Metric	Imperial
Tensile strength at 20°C (dependend on orientation)	320 MPa	73,300 psi
Hardness (Rockwell 'M')	80-110	80-110
Coefficient of thermal expansion (dependent on orientation)	0.37-1.9 x 10 ⁻⁵ /°C	0.21-1.06 x 10 ⁻⁵ /°F
Specific gravity	1.85	1.85
Suggested mean temperature range (Ts + Td)/2 (lube/non-lube gas compressors)	-160°C to 120°C	-256°F to 250°F



Note: The values above are for reference only and are not intended for specification or quality control purposes.