

CPI 184

Special polymer alloy for oil-free
gas compressor piston and rod seals



materials data

CPI 184 is a proprietary polymer alloy developed exclusively by CPI, which has become the preferred material for use on non-lubricated gas compressors and in particular those gases which are 'bone-dry' (very low dewpoint), where users have been able to obtain lives of between 3 and 40 times those achieved with conventional (filled-PTFE) materials.

Natural gas, hydrocarbon mixtures, ammonia and carbon dioxide are among the dry gases in which CPI 184 rings have been used with outstanding results.

Some of the main physical properties of CPI 184 are given below. For high duty applications which require superior physical properties, other CPI materials such as CPI 192 may be considered.

CPI 184 is not suitable for use in dry air compressors or dry oxygen compressors and is not recommended for use in oil-lubricated compressors.

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	11 MPa	1600 psi
Elongation at 20°C (%)	5	5
Coefficient of thermal expansion	70-90 x 10 ⁻⁶ /°C	3.9-5.0 x 10 ⁻⁵ /°F
Hardness (Shore 'D')	65-70	65-70
Specific gravity	1.9	1.9
Suggested mean temperature limit (Ts +Td)/2 (non-lube gas compressors)	125 °C	260 °F