

Cylinder Block and Cylinder Head Surface Finish

The active layers of Permaseal MLS-R cylinder head gaskets are manufactured from pre-coated stainless steel, specifically developed by NOK for use in automotive applications, This coating ensures excellent micro sealing of engine fluids.

If a surface finish is too rough or coarse the gaskets active layer coating cannot fully conform to the surface irregularities. Combustion gases and engine fluids cannot be properly sealed.

Surface finish or perhaps more correctly surface roughness values are normally expressed as roughness average or **Ra**, either in micrometers or microinches. **Ra** is the calculated value of the average roughness deviation from the mean roughness height.

Surface finish can be measured using a surface roughness tester called a profilometer which drags a diamond tipped stylus across the surface to measure and calculate the surface finish.

When installing a Permaseal MLS-R High Performance cylinder head gasket, ensure both cylinder head and cylinder block surfaces meet the required surface finish of **less than 0.50 micrometers Ra** (less than 20 microinches Ra).

Diamond tipped stylus measuring block surface



Surface finish reading under 0.50µm

