

Mechanical Seal's Materials

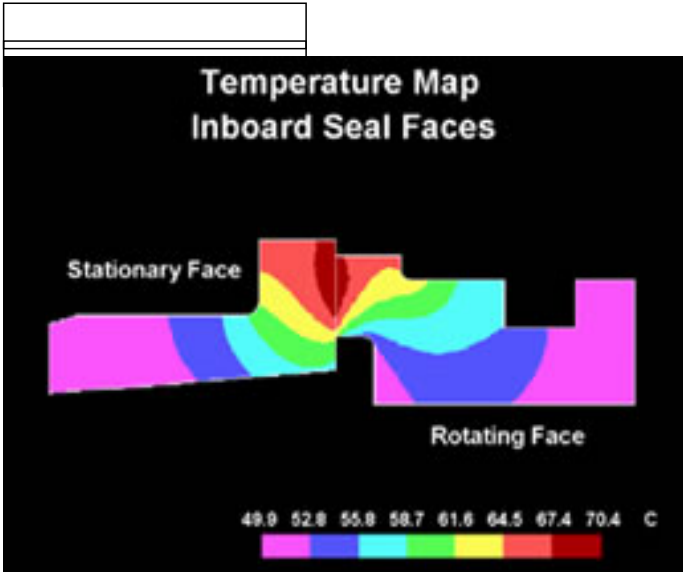
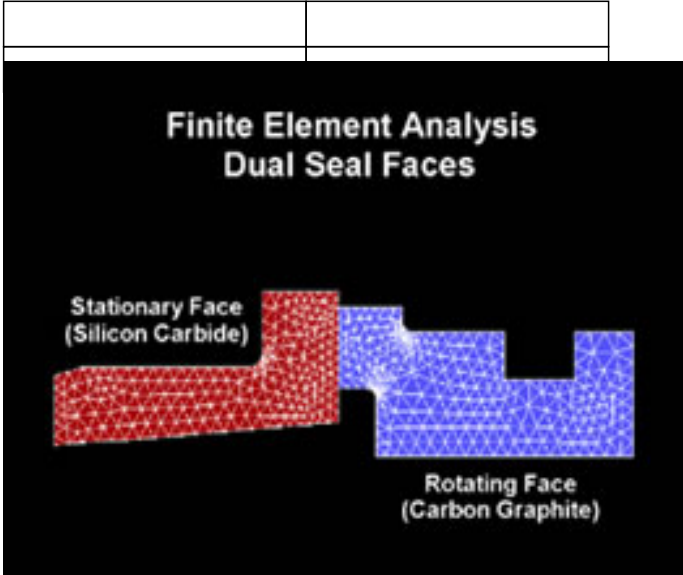
This chapter describes the materials commonly used in the construction of mechanical seal and the factors influencing selection for different applications. a mechanical seal can be split into four main groups of components:

Flexible member( O ring, gaskets, Rubber bellows): NBR / HNBR / VITON / EPDM

Face (Primary Ring): Carbon / Ceramic / SIC / TC

Seat (Stationary Ring): Carbon / Ceramic / SIC / TC

Metal Parts ( Spring , Sleeve, Spring hold ) : SUS304 / SUS316 / MONEL / STELLITE




While individual seal designs vary, in almost all cases these components can be readily distinguished. Selection of the materials used in mechanical seal is based on experience, backed up where necessary by laboratory testing. In normal circumstances material selection is the responsibility of the mechanical seal manufacturer and it is thus essential that he is provided with full details of the fluid coming into contact with the mechanical seal. These should include minor chemical constituents and off design conditions that can occur in service. For instance, pumps operating in the food or pharmaceutical industries may be subject periodically to special sterilization procedures which can involve flushing with different chemical fluids from those normally handled.

Detailed information : [Carbon Graphite](#); [Tungsten Carbide](#); [Silicon Carbide](#); [Secondary Seals](#); [Seal Face Loading Element](#); [Metal Parts](#).