

Zirconia Liner

The TSC Zirconia Liner offers considerable operational cost savings, significantly longer service, better performance and safer operation than liners made from the more commonly used alumina ceramic.

The TSC liner is made from a proprietary zirconium-based matrix that has vastly improved mechanical properties.

Zirconia has three important advantages compared to alumina.

- Better impact strength
- Increased hardness
- Finer surface finishes

These attributes translate to lower cost of ownership, because improved wear characteristics directly extend the service life of the sleeve. At the same time, the improved impact strength reduces the significant costs of replacing broken liners in the field.

The surface finish is 3-4 times finer than alumina, which has an indirect but longer term effect. The improved finish generates less friction with elastomer-and-metal pump pistons, which in turn extends piston life and reduces pump-cooling requirements.

- HP design with shoulder-on-hull form prevents sleeve slippage
- Improved piston life compared to alumina oxide (ceramic) liners
- Improved impact characteristics
- Lower thermal load on the liner wash system
- Higher thermal ratings
- Hardness of HV 0.3 kg/mm – 1,100/1,200 (92–94 Rc)
- Enhanced high-temperature performance
- Available in 4 ½" – 7" liner sizes for popular mud pumps

