EHD Film Thickness Discs

- Description

The standard EHD specimen setup consists of a 3/4“ diameter plain standard ball that is made from carbon chrome steel and has a high grade surface finish to ensure good reflectivity. The standard glass disc is coated with approximately 20 nm of chromium and 500 nm of silica. The ball can also be drilled to allow it to be driven during the test at a set slide/roll ratio (SRR). Although the ball has to be reflective, it can be made from different materials. In the past we have supplied tungsten carbide balls (either plain or drilled) and sapphire discs to enable contact pressures up to 3 GPa. Below is information on some of the existing specimens available:

- **Plain Chromium Coated Disc (part code: EHDPCD)**

This is an EHD plain chromium coated disc. This is used for both defining the spectral response curve and creating the master calibration curve for the 3D Mapper (EHD3DMAP).

- **Standard Spacer Layer Disc (part code: EHDSLDOI)**

This is the standard EHD spacer layer disc and is used when the EHD rig is in film thickness measurement mode.

- **Silica Spacer Layer Glass Disc for 3D Colour Mapping (part code: EHDSLDCM)**

This is an EHD spacer layer disc, blue in colour (150nm of coating) and is used when the EHD rig is producing 3D thickness measurements

- **Silica Spacer Layer Sapphire Disc (part code: EHDSAPPH)**

Sapphire Disc to be used when the EHD rig is in film thickness measurement mode
for contact pressures up to 3GPa

- **Sapphire Disc for Colour Mapping (Blue) (part code: EHDSAPPHCM)**

Blue Sapphire Disc to be used when the EHD rig is in 3D film thickness measurement mode
for contact pressures up to 3GPa