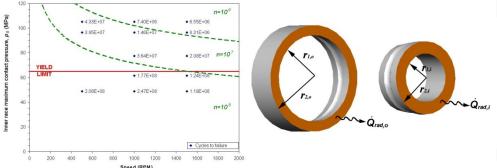
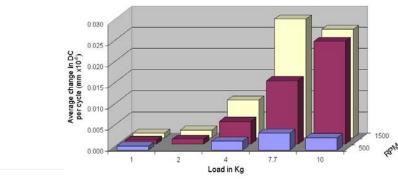
## Institution of MECHANICAL ENGINEERS

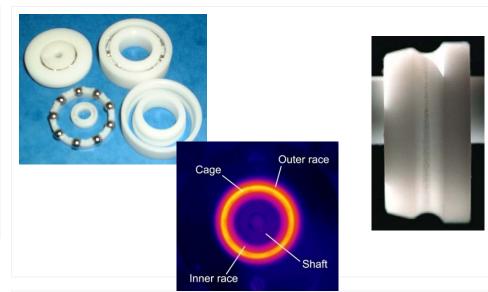
## Polymer Rolling Bearing Durability

## The Tribological Performance of Rolling Bearings

- Polymer bearings are potentially cheaper
- They are also not so sensitive to loss of lubricant as metal bearings
- However, they have a greatly reduced load and sped capacity







## Results

- Durability criteria based on load and speed limits are simple and useful.
- Depending on the loading regime adhesion, fatigue, or surface melting can occur.
- Thermal imaging and models of heat generation in the bearing help identify operating limits

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