

Timken Test

Description

*Timken test is ideally suited for evaluation of **Extreme Pressure** and **Anti Wear** properties of lubricants and greases. Both lubricating fluids and greases can be evaluated to determine the load required for the onset of severe abrasive wear and scuffing.*

The Timken test consists in a bearing race mounted on a tapered arbor rotating at high speed. The race is brought into contact with a square steel test block under normal load. The contact area is flooded with the lubricant being tested.

*The width of wear scar is measured at several applied normal load and the « **OK load** » is defined by the load at which scoring, scuffing or seizure appears.*

*The test method is **widely used for specification purposes** and to differentiate among lubricants having low, medium, or high levels of extreme pressure characteristics.*

The device also allows the measurement of anti wear properties of specific material under dry lubricating conditions.

- **Normal Loads** → 5 N - 5000N
- **Rotating speeds** → 0-2500 tr/min
- **Temperatures** → Ambient to 300°C

Standards

Extreme Pressure properties:

ASTM D 2509; DIN 51434 P3; IP 326: EP Properties of Lubricating Greases

ASTM D2782; DIN 51434 P2; IP 240 : EP Properties of lubricating Fluids

Anti Wear properties:

ASTM G77: Ranking Resistance of Materials to Sliding Wear using Block on ring Wear Test

ASTM G 176-03: Ranking Resistance of Plastics to Sliding Wear using Block-on-Ring Wear Test—Cumulative Wear Method.

ASTM G 137-97: Ranking Resistance of Plastic Materials to Sliding Wear Using a Block-On-Ring Configuration

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