

Improvement in running-in behaviour and energy efficiency: Durotect B

Features

Durotect B is a black oxide coating method with optimised process control. This gives a special surface structure for components subjected to high tribological stresses.

The mixed iron oxide coating thus provides excellent characteristics, which are now increasingly required in many automotive and industrial applications.

Coating process

- Chemical conversion.

Advantages, benefits

- No change to component geometry necessary
- Geometrically stable coating even under bending and compressive stress on the component
- Improved running-in behaviour
- Reduction in slippage damage
- Reduction in WEC-induced failures
- Improved resistance capability against surface-induced damage SIF (surface initiated fatigue)
- Improvement in friction characteristics in conditions of lubricant starvation.

Common applications

- Full complement cylindrical roller bearings
- Ball bearings
- Rolling elements and rings for bearings in wind turbines and railway drive bearings
- Various components in transmission and belt drive systems.

Characteristics

Characteristic	Coating
Composition	Mixed iron oxide
Colour	Dark brown to black
Layer thickness	$\geq 0,5 \mu\text{m}$

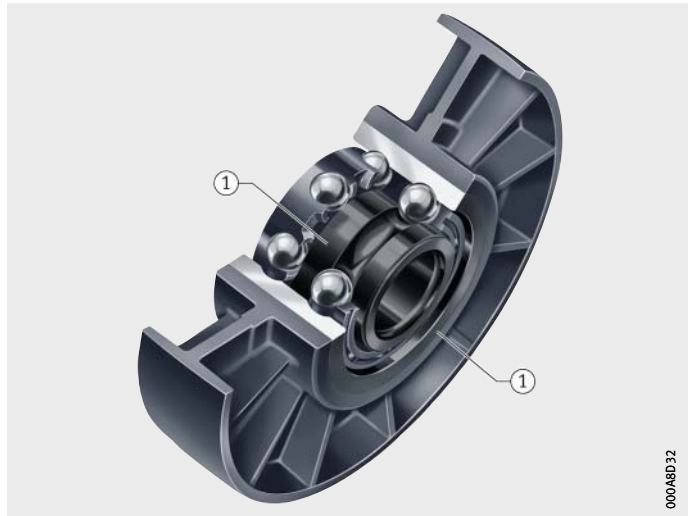
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Figure 1
Single row cylindrical roller bearing
with Durotect B coating



① Durotect B-coated inner and outer ring

Figure 2
Belt tension pulley
with Durotect B coating



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