

ACB TriboSlide® Coating

Properties

Metal-containing amorphous carbon coating with a multilamellar structure. Phases rich in tungsten carbide and carbon alternate every few atomic layers, giving a very low coefficient of friction at dry running.

Advantages

- Guards against wear and corrosion and reduces friction
- Low coefficient of friction
- Increases surface hardness
- Tolerate greater loads
- Lower energy consumption
- High hardness
- Excellent replication of contours
- High level of protection against abrasive and adhesive wear together with preservation of the friction partner

Benefits

ACB TriboSlide® coating is highly resistant to adhesive wear (scuffing) in particular. It has a high load-bearing capacity even under conditions of deficient lubrication or dry contact.

Common applications

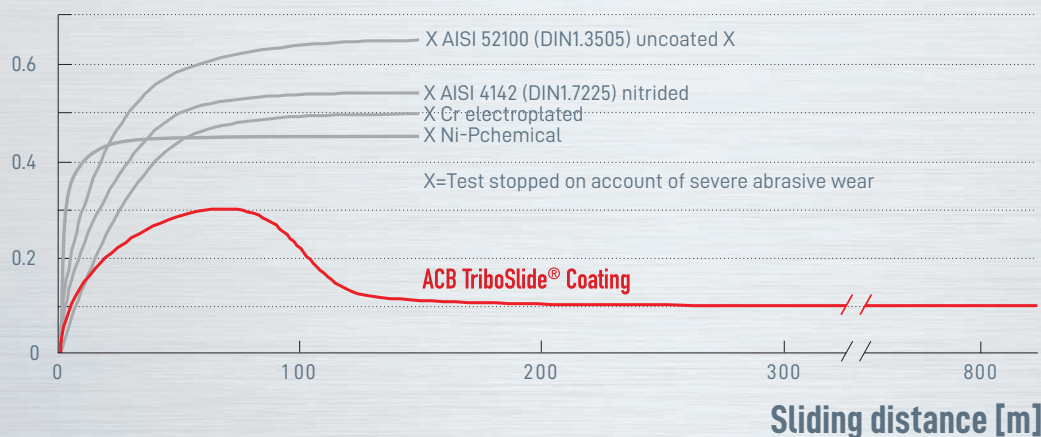
- Dry friction against steel is reduced by up to 80%
- If only one friction surface is coated, the operating life of the entire tribological system is increased considerably
- Due to its highly ductile coating structure, ACB TriboSlide® can withstand the high contact pressures that occur in rolling bearing applications.
- Bearing components such as rolling elements, inner rings, outer rings, and axial bearing washers
- Yoke and stud type track rollers.

ACB TriboSlide® Coating Characteristics

Feature	Coating
Composition	a-C:H:Me (functional layer)
Colour	Hard coal
Layer thickness	0,5 µm – 4 µm
Friction reduction	Up to 80% with TriboSlide coating/steel in comparison with steel/steel (in dry state)
Hardness	> 1000 HV



Coefficient of friction



Rolling element after test rig run



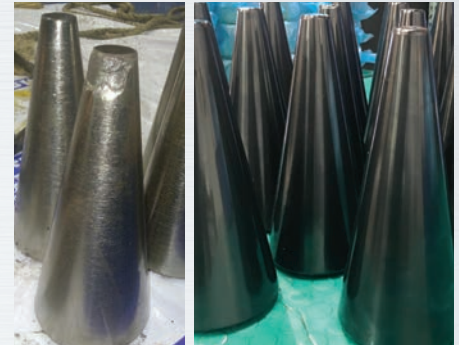
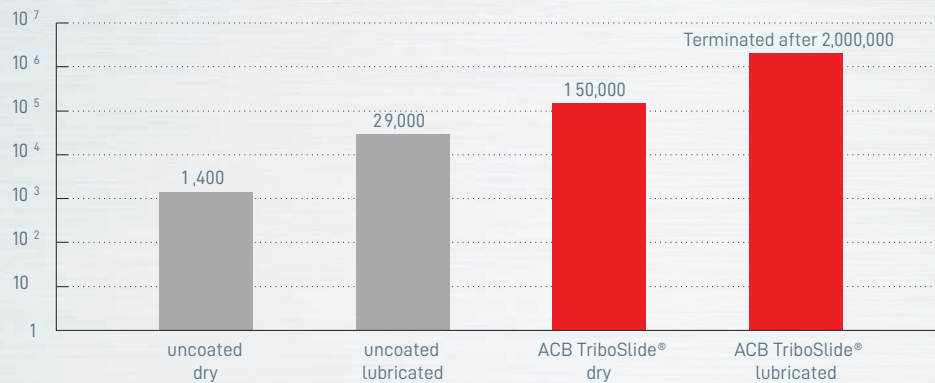
Higher scuffing resistance of ACB Triboslide® coated bearing components and gears under poor lubricating conditions

In a bearing and gear test, unlubricated ACB Triboslide® coated bearing components and gears achieve a longer lifetime than poorly lubricated, uncoated bearings components and gears.

The best results are achieved with coating and lubrication: coatings are, however, never a substitute for a well lubricated system.

ACB TriboSlide® Coating wheel wear in dry running and starved lubrication

Number of load cycles



Uncoated

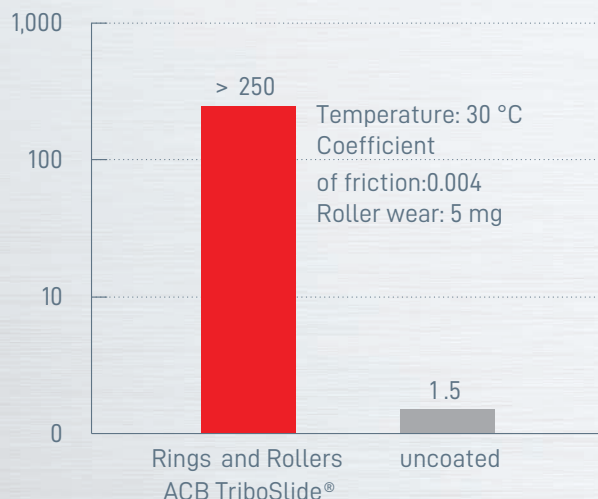
ACB Triboslide® Coated

ACB Triboslide® coating increases pitting resistance of roller bearings

Coating of bearing rollers with **ACB Triboslide®** coating improves pitting resistance. Bearings thereby exhibit longer service life and better reliability.

Excellent running-in behavior, low friction, and anti-galling properties due to formation of an effective barrier between metal/metal contacts; effectively suppress metal structural damages such as white etch cracks and, ultimately, fatigue failure.

Service life [h]



ACB Triboslide®
is an ABS proprietary
engineering coating
product brand

