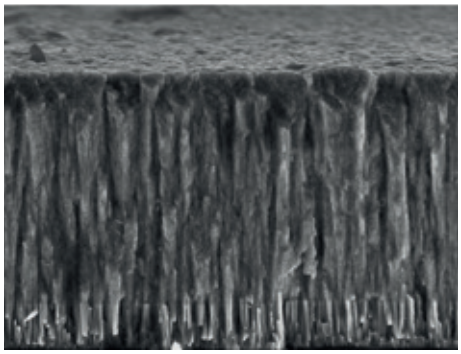
ionbond

Tribobond™ 40 DLC



DLC-based coating for highly loaded industrial and automotive components

Ionbond's Tribobond™ 40 DLC, also designated as a-C:H:W, is one of the widely used coatings for industrial and automotive components. It is essentially a DLC coating with dispersed nanoparticles of tungsten carbide (WC). The coating is specifically designed for applications with high contact loads in rolling and sliding contacts, such as gears and bearings. It combines excellent running-in properties with a good wear resistance and low friction. In addition, this coating reduces negative impacts of contact fatigue, common in cyclically loaded contacts.
For these reasons, Tribobond™ 40 DLC is a coating of choice on many transmission components in automotive and industrial applications.

Performance

Apart from high wear resistance and low friction, , Tribobond™ 40 DLC exhibits high load bearing capacity and the highest ductility in the Tribobond family of the DLC coatings. It also offers an excellent protection of the counterparts, which extends the lifetime of both components of the friction pair.

Technical Data

Material	Cr + a-C:H:W
Technology	PVD Sputter
Thickness range	1 – 8 µm
Nanohardness, HV	1000 – 1800
Friction vs. Steel	< 0.2
Service Temperature	350 °C
Process Temperature	< 200 °C
Color	Grey
Application Reference	Low friction wear and fatigue resistance for rolling contacts