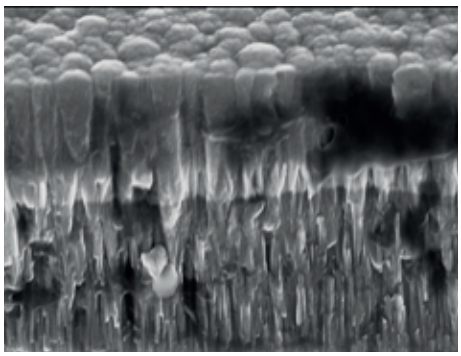
ionbond

Tribobond™ 46 DLC



DLC coating for highly loaded applications with impact fatigue and/or rolling contacts

Ionbond's Tribobond™ 46 DLC, CrN + a-C:H:W has a top layer similar to Tribobond™ 40; however it is deposited on CrN underlayer as opposed to pure Cr. High hardness of CrN and its load bearing capacity allows to provide additional support for the functional a-C:H:W layer and also to act as an backup wear resistant layer in case if a-C:H:W is worn out. As a result, Tribobond™ 46 can sustain even higher contact loads than Tribobond™ 40. Tribobond™ 46 films can be tuned to utilize the a-C:H:W top layer as a running-in film, in which case CrN becomes the functional wear resistant layer.

This results in a coating system that combines excellent running-in properties, a high load carrying capacity and fatigue resistance with a good wear resistance and a low co-efficient of friction.

Technical Data

Material	Cr + CrN + a-C:H:W
Technology	PVD UBM
Thickness range	1 – 8 µm
Nanohardness, HV 0.005	1000 – 1800 (for a-C:H:W top layer)
Coefficient of Friciton	< 0.1 (for a-C:H:W top layer) dry vs. steel
Service Temperature	350 °C
Process Temperature	200 – 250 °C
Color	Grey