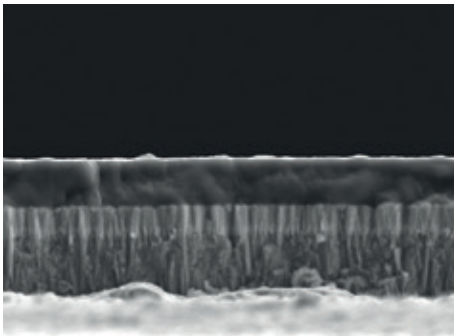




Tribobond™ 42 DLC



DLC coating for highly loaded industrial components and high volume automotive applications

Ionbond's Tribobond™ 42 DLC, CrN + a-C:H, coating is engineered for very highly loaded components. It combines a high load carrying capacity and fatigue resistance with a high wear resistance and still exhibits very low friction properties. Tribobond™ 42 DLC presents an excellent performance on valve train (e.g. tappets) and crank train components (e.g. piston pin/ring). State of the art common rail and unit injector components are protected with Tribobond™ 42 in order to improve the robustness and lifetime of fuel pump and fuel injection system. Apart from automotive, multiple components of industrial machinery benefit from Tribobond™ 41 through reduction of wear and friction, thus extending their lifetime and maintenance intervals. The coating shines in particular in applications with marginal lubrication and high loads.



Performance

Ionbond's Tribobond™ 42 DLC is especially designed to run under combined rolling and sliding situations. It combines properties of extreme fatigue resistance, a very low coefficient of friction, and high wear resistance within one coating system. In operation, this coating architecture provides extreme protection of the coated part, as well as the counterpart. In industrial applications Tribobond™ 41 is widely used for wear applications in aerospace, oil and gas, power generation, racing and other industries.

Technical Data

Material	Cr + CrN + CrWC + a-C:H
Technology	PVD UBM + PACVD
Thickness range	1 – 8 µm
Nanohardness, HV 0.005	2000 – 2800
Coefficient of Friction	< 0.1 dry vs. steel
Service Temperature	300 °C
Process Temperature	200 – 250 °C
Color	Black