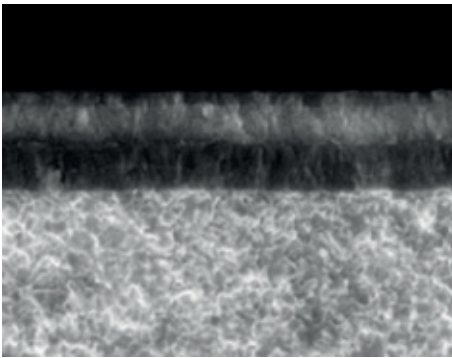


BERNEX™ 02



Bernex™ 02 TiC

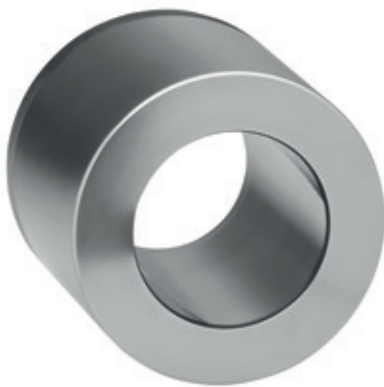


Wear resistant and low friction CVD coating

The combination of high hardness, toughness, wear resistance and the low coefficient of friction of Bernex™ 02 make it an ideal coating for open tolerance tools used in metal forming applications. Bernex™ 02 provides excellent performance in forming ferritic and austenitic stainless steels, high strength low alloy (HSLA), advanced high strength steels (AHSS), and steel alloy work pieces with a thickness of more than 2 mm.

In addition, the inherent characteristics of Bernex™ 02 make it a better solution than traditional PVD coatings for open tolerance tools used in piercing applications.

Bernex™ 02 is deposited at 1000 °C. Therefore, it is only recommended for tool materials compatible with the elevated temperatures. Due to the fact that tool steel will undergo dimensional changes, sufficient dimensional tolerances are required or dimensioning has to be adapted to compensate for the expected changes. Tempered tools need to be heat treated after coating in order to restore the desired hardness of the tool material.



formingmolding@ionbond.com | www.ionbond.com

Technical Data

Material	TiC
Hardness HV 0.05	3200
Coefficient of Friction	0.2
Oxidation Temperature	300 °C
Typical Thickness	6 – 10 µm
Deposition Process	CVD
Process Temperature	1000 °C
Color	Grey