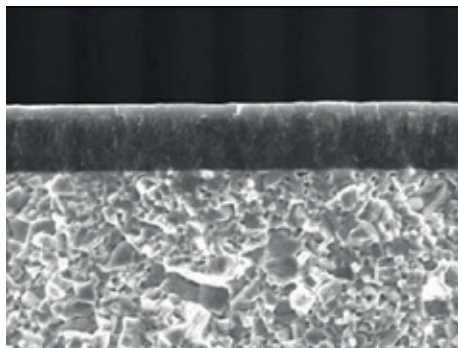


BERNEX™ 62



Bernex™ 62 TiC + MoS₂



Premium CVD coating for use in metalforming applications

Bernex™ 62 couples the high hardness, toughness and wear resistance of CVD deposited TiC with the ultra low coefficient of friction of MoS₂ solid lubricant coating. The result is a more efficient product for open tolerance tooling used in metal forming applications where sliding friction is the root cause of tool failure. Bernex™ 62 provides excellent performance in the forming of ferritic and austenitic stainless steels, high strength low alloy (HSLA) and advanced high strength steels (AHSS), steel alloy work pieces with thicknesses of more than 2 mm, nickel alloys and titanium.

The high toughness and ultra low coefficient of friction of Bernex™ 62 make it an excellent solution for open tolerance tools used in piercing applications. Bernex™ 62 is particularly tailored to materials with high work hardening or spring back properties.

The TiC component of Bernex™ 62 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.

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Technical Data

Material	TiC + MoS ₂
Hardness HV 0.05	3200 + 2000
Coefficient of Friction	0.03 – 0.06
Oxidation Temperature	500 °C
Typical Thickness	8 – 10 µm
Deposition Process	CVD/PVD sputtering
Process Temperature	1000/150 °C
Color	Grey