Signature Coating Omnis-BX

Specialist for highly demanding machining

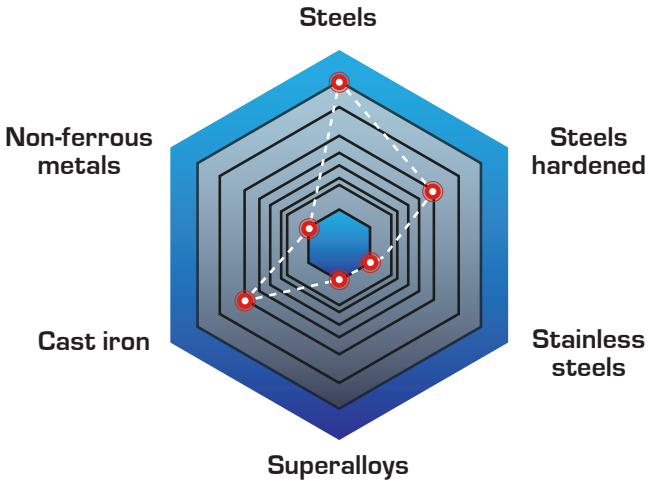
LARC SAT

Omnis-BX consists of a boron-x doped AlCrN protective coating, which is especially suitable for crack inhibition and thus for high-speed applications such as transmission and gear cutting tools. Omnis-BX delivers top performance under high loads, especially in gear hobbing and roughing (dry and wet).

Highlights:

- Low coating residual stress
- Crack-resistant
- Minimizes crater wear
- Increases hardness and toughness

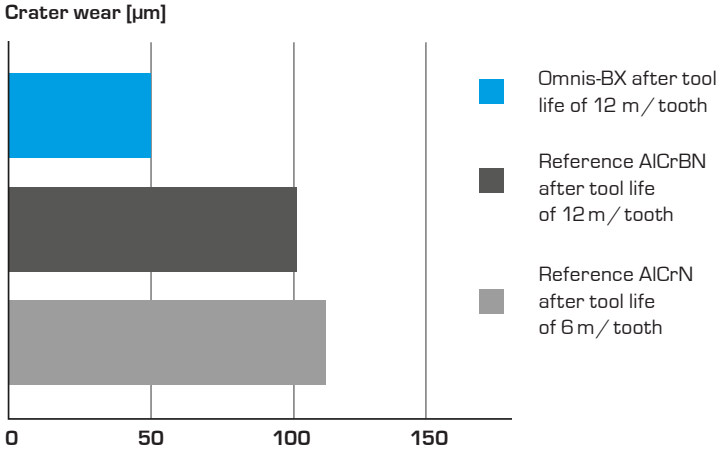
Characteristics in cutting:



Specifications

Color	grey
Nano-hardness [GPa]	36 – 38
Coefficient of friction [µ] PoD (at RT, 50 % humidity)	0.5
Coating thickness [µm]	1 – 5
Max. service temperature [°C]	1,100
Coating temperature [°C]	400 – 500
411 G3	AlCrB20_10, Cr, AlCr35
1011 SAT	Cr, AlCrB30_10, AlCr36, AlCrSi30_10

Effect of boron doping on crater wear in hobs:



Tool: HSS hob; D100
Workpiece material: 20 MnCr 5
Cooling air; mn = 4 mm; vc = 220 m / min, fa = -6.4 mm / rot
Max. chip thickness hcu = 0.24 mm
Source: IFQ Magdeburg

Calo: Omnis-BX