

ZrCN – ZIRCONIUM CARBONITRIDE

The coating with excellent resistance towards corrosion.

ZrCN offers excellent resistance towards corrosion and abrasive wear and stands out thanks to its high hardness, tribological properties and toughness. Compared to the well known light yellow ZrN, the brownish ZrCN possesses greater abrasion resistance as required in particular for cutting aluminium alloys with Si content. In conjunction with its high level of hardness, ZrCN therefore provides an excellent solution for aluminium alloys with up to about 8% Si content. The ZrCN coating is also recommended for machining fibreglass, nylon and the majority of polymer materials.

The ZrCN coating is produced by means of voestalpine eifeler arc technology. This allows well-bonded coating of substrates such as solid carbide, HSS and numerous other materials at temperatures of approximately 450 °C.

PRODUCT FEATURES

- » Resistance towards wear
- » Very hard
- » Excellent resistance towards corrosion
- » Low friction coefficient
- » Good coating adhesion

APPLICATIONS

Cutting	The ZrCN coating is especially suitable for working aluminium alloys and is also a good choice for working non-ferrous metals. A factor here is the fact that the ZrCN coating does not cold weld with light metals.
Punching and forming	For applications in the area of light metals where the TiN coating could lead to cold welds. And anywhere requiring enhanced corrosion protection with simultaneously high resistance towards abrasion.

COATING PROPERTIES

Hardness	3,100 ± 300 HV
Max. application temperature	600 °C / 1,110 °F
Coefficient of friction against steel	0.5
Coating thicknesses	1 - 4 µm
Colour	brownish silver

