

DUPLEX-VARIANTIC®

Get your sheet metal into shape with ease.



03/2026 - Specifications are subject to change without notice

Especially when processing microalloyed steels with a tensile strength of up to 700 MPa, the Duplex-VARIANTIC® demonstrates its strengths: it promotes a stable material flow and enables excellent component surface quality.

Its temperature-resistant TiAlN base layer provides outstanding hardness and thermal stability, while the hard and low-friction TiCN top layer significantly reduces wear. This layer combination offers an optimal balance of wear protection and sliding performance – ideal for demanding tools and complex forming processes at moderate tensile strengths.

ADVANTAGES

- » Significant friction reduction
- » Multilayer structure
- » High wear resistance
- » Tough, hard, and resistant up to 800 °C

COATING PROPERTIES

Hardness	35 ± 5 GPa (~3,500 HV)
Coating thickness	3 – 5 µm
Maximum operating temperature	800 °C / 1,470 °F
Coefficient of friction against steel	0,2
Residual stress	- 2.4 ± 0.5 GPa
Color	Antique pink
Coating composition	TiAlN based

APPLICATIONS

- » Cold and semi-hot forming, particularly microalloyed steels

