

DUPLEX-VARIANTIC®-1400

The robust coating for forming high-strength sheet steel

Thanks to the growing importance of lightweight design, high-strength and ultra-high-strength sheet steel is being used more and more frequently. New Duplex-VARIANTIC®-1400 has been developed specifically for forming sheets with tensile strengths ranging between 1,000 and 1,400 MPa. It guarantees improved and reliable tool performance when it comes to these steel sheet grades.

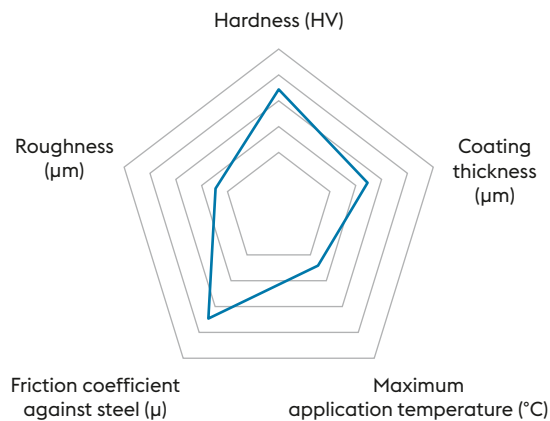
COATING BENEFITS

- » Up to 460% better durability compared with coating solutions
- » Al(Cr,Ti)N-based PVD coating with custom-adapted grip and top coating
- » In-situ plasma pretreatment of the tool within the coating process to increase the supporting effect based on the unique voestalpine eifeler Duplex process
- » Excellent resistance against abrasive and adhesive wear in the cold forming of galvanised sheet steel with tensile strengths of up to 1,400 MPa and above
- » Excellent adhesion
- » Improved workpiece quality

APPLICATIONS

- » **Forming tools**
Cold forming, specifically for sheet steel qualities of between 1,000 and 1,400 MPa
- » **Punching/cutting**
Specifically for sheet steel qualities $\geq 1,000$ MPa

COATING PROPERTIES



Hardness	3,000 ± 200 HV
Coating thicknesses	5 – 7 µm
Max. application temperature	800 °C / 1,470 °F
Friction coeff. against steel	0.6 – 0.7 µ
Roughness	< 0.1 µm
Colour	Gold

