

Dedicated Coating example

FeinAI Plus

The next generation of the dedicated coating for fineblanking applications

Longer tool life and higher tool efficiency: partner companies Blösch, Feintool and PLATIT release FeinAI Plus, a new generation of dedicated PVD coatings for fineblanking.

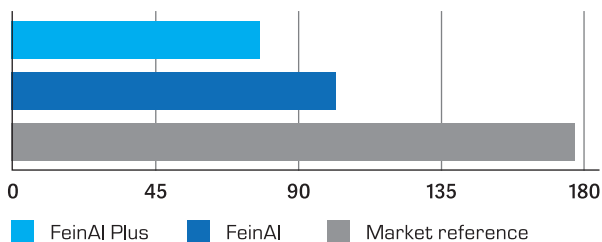
FeinAI set the market standard for PVD coatings of fineblanking tools over many years through its dedicated coating design and seamless integration in a process chain of customized pre- and post-treatment steps. Based on the proven concept of FeinAI and by adding several years of continuous development, the project partners announce the next level of coatings for fineblanking applications: **FeinAI Plus**

Numerous innovations lead to the unmatched tool performance of FeinAI Plus:

- Dedicated AlCr multilayer creating a tough and flexible coating structure
- Selective doping with boron, simultaneously reducing internal stress and increasing hardness
- Improved crack resistance and thus less chip welding inside the cracks
- Specialized edge rounding processes and post-polishing steps tailored to the substrate material, tool geometry, and coating design

Average wear comparison [μm]:

Average measured wear on tools from four different test series after up to 30,000 strokes



Tool: Internal forming punch; high-speed steel S390; hardness of 66 HRC
 Coating thickness: 3.5 μm
 Punching material: quality C60E; thickness 3 mm; tensile strength 560 MPa
 Source: Feintool International Holding AG



Blösch specializes in the processing and finishing of surfaces.



Feintool is the leading manufacturer and expert in fineblanking.



PLATIT manufactures high-tech PVD and PECVD coating units for tools and components.

Specifications

Color	grey
Nano-hardness [GPa]	38–40
Coefficient of friction [μ] PoD (at RT, 50% humidity)	0.3
Coating thickness [μm]	2.0–4.0
Max. service temperature [$^{\circ}\text{C}$]	900
Coating temperature [$^{\circ}\text{C}$]	400–500
411 G3	Al, AlCrB20-10, Cr

