

## NovaDur® F evo



The booster for your pressing and shaping tools, forging dies, die casting tools and press hardening

**More efficient pressing, cutting, bending, cupping, minting and forging and more** – with NovaDur® F evo (AlCrTiN), the high-performance coating technology optimized through innovative process technology. Optimized for the universal use of processing medium and high strength materials which are being used more and more across all industries.

### Applications

- **Pressing and shaping tools** (pressing, cutting, bending, cupping and minting) e. g. for medium and high strength materials
- **Forging dies**
- **Die casting tools**
- **Press hardening**

- + higher service life due to enormous wear resistance
- + good polishability
- + good gliding properties
- + higher productivity and economics due to high and secure production and low maintenance costs
- + Good demoldability for die casting applications

### Attributes of NovaDur® F evo coating

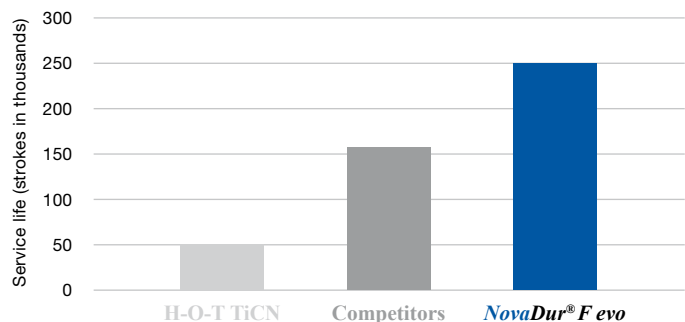
<b>PVD coating</b>	AlCrTiN
<b>Coating composition</b>	Nano structured
<b>Micro hardness</b>	3,000 – 3,400 HV
<b>Thickness of coating*</b>	3 µm and 6 – 9 µm
<b>Max. operational temperature</b>	1,100°C
<b>Friction against steel</b>	0.4
<b>Colour of coating</b>	black-grey
<b>Recommendation for cutting tools</b>	3 µm

\* thickness of coating depends on the application (with respective tolerance of thickness coating +/- 1 µm)

### Shaping test – Shear die

Material: S600 | Sheet thickness: 3.5 mm

Tool: D=45 mm | ASP2053 | 64 HRC | Hardened, tempered and polished by H-O-T





LET'S OPTIMIZE EXCELLENCE

## HEAT TREATMENT

Vacuum hardening  
Inert gas hardening  
Plasma nitriding  
Gas nitriding  
Salt bath nitrocarburizing  
evochrome process  
BLACK-NOX process  
AdBlack process  
Annealing  
Oxidizing  
Sub-zero cooling  
Heat flattening

## TRIBOLOGY

PVD coating  
PACVD coating  
Laser-ARC process

## COATING TECHNOLOGY

PVD coating  
PACVD coating  
Laser-ARC process  
UniTwin® combination systems  
hi-Fusion coating

## PLANT ENGINEERING

TT 300  
TT 1000  
TT 1500  
Concept plants

## SERVICE

Laboratory  
Polishing  
Consultation  
Glassy State  
Service life test  
Pick-up service  
Salt fog test  
Blasting processes  
Repair of coating fixtures

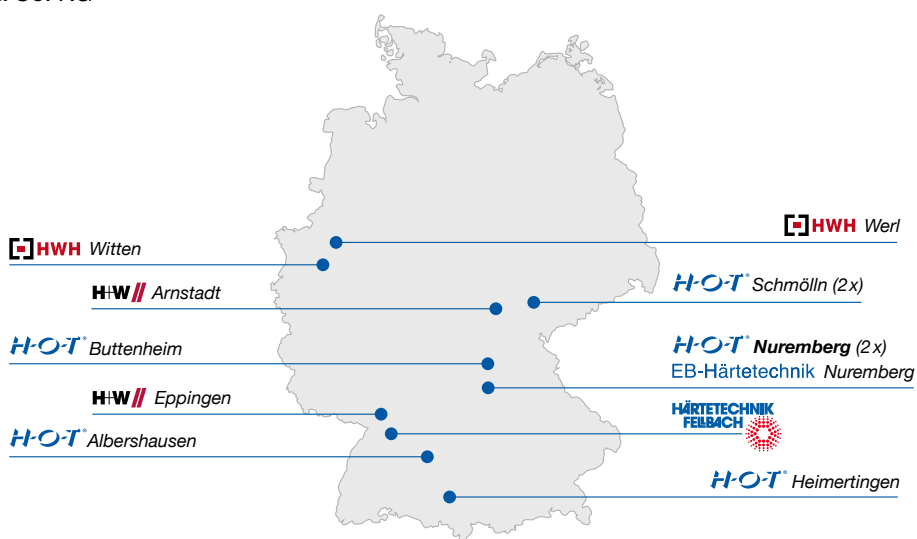
## H-O-T

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