BIHLER ALCRONA PRO

New hard material coating for stamping and forming tools

Exploit the potential of your Bihler machine now even better. With the new **BIHLER ALCRONA PRO** hard material coating we offer you the top allround solution in the field of stamping and forming. Benefit from optimum coating properties, significantly longer service life of your active tool parts and significantly higher productivity in your production.

In addition to **BIHLER ALCRONA PRO** you have the option of five more hard material coatings on our Balzers PVD coating system. Perfectly designed for various applications and materials, these coatings also guarantee better stamping and forming properties for your tools. Shortest delivery times and a comprehensive transfer of know-how complete our service package.

BIHLER

Benefit from these advantages

- Higher productivity through significantly longer service life of your active tool parts
- Significantly higher cutting data for your tools
- Improved forming behavior of the material
- Increased process reliability through optimized friction properties
- Improved surface of the produced parts
- Low coefficient of friction reduces stamping and return forces
- Delivery of ready-to-use wear parts
- Optional re-coating after regrinding or other rework

Innovative coating systems from Bihler

Subject to application and material the following hard-material coatings can be applied:
(Maximum component dimensions: Diameter or cross section 250 mm × length 450 mm)

	BIHLER ALCRONA PRO	BIHLER A	BIHLER B	BIHLER D	BIHLER FUTURA	BIHLER FUTURA NANO
Coating material	AlCrN	TiN	TiCN	CrN	TiAlN	TiAlN
Micro hardness (HV 0,05)	3200	2300	3000	1750	3000	3300
Friction coefficient on steel (dry)	0,35	0,4	0,4	0,5	0,4	0,30 - 0,35
Coating thickness (µm) (other thicknesses on request)	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3	2 - 3
Application temp. (max. °C in air)	1100	600	400	700	800	900
Coating color	light gray	gold-yellow	blue-grey	silver-grey	violet-grey	violet-grey
Coating composition	Monolayer	Monolayer	Multilayer, graded	Monolayer	Multilayer	Nanostructure

	PROPERTIES	APPLICATION
BIHLER ALCRONA PRO	Excellent wear resistance, Thermal shock resistance and hot hardness	Great allround solution for stamping and forming
BIHLER A	Multi-purpose standard surface coating	Steel machining, friction reduction
BIHLER B	High hardness level, good toughness	For tools subject to high mechanical loads (stamping, forming and milling)
BIHLER D	Corrosion and oxidation resistant	Copper machining, low-temperature forming
BIHLER FUTURA	High elevated-temperature hardness, oxidation resistant	For HSS and HM tools with high thermal loads (drilling, milling, turning, HSC, dry machining)
BIHLER FUTURA NANO	Optimized ratio (hardness/residual compressive stress), and increased thermal and chemical resistance, improved sliding properties, greater wear resistance	Tools subject to high thermal and abrasive loads

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