

Reduce your tool costs with reconditioning

BALINIT® ALCRONA PRO also means: No performance losses after reconditioning. Even after multiple recoating operations, you still benefit from the same high performance

as after initial coating – and you save considerably on costs. We would be pleased to provide you with information on our reconditioning services.

Amount of machined material, 100%



Benefit from the BALINIT ALCRONA PRO high-performance coating
Contact us now!

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BALINIT ALCRONA PRO Uniquely adaptable

Universal machining at the highest level



HQ090EN (1508)

Cutting Tools



BALINIT ALCRONA PRO

Optimal machining, multiple benefits

You are undoubtedly familiar with this challenge faced in manufacturing engineering: Your tools are already subjected to heavy mechanical and thermal loading, yet there is a drive to continuously increase productivity. So being able to rely on a coating that has been adapted for changing manufacturing conditions and masters new challenges is really important: BALINIT® ALCRONA PRO

from Oerlikon Balzers, a worldwide technological leader in the field of hard coatings. Benefit from the improved properties of this coating and a multitude of possible applications coupled with exceptional reliability – even after reconditioning. Get the BALINIT® ALCRONA PRO competitive edge with its many benefits.

Coating properties that are top notch – as are your advantages

OPTIMIZED PERFORMANCE

- | | | |
|---|---|---|
| Optimized process parameters and modified layer structure | > | Significantly strengthened performance profile
Broad application range |
| Very high wear resistance and excellent hot hardness | > | Vastly improved tool lifetimes compared to conventional all-round coatings |
| Very good thermal shock stability | > | Top results in both wet and dry machining and at the highest of cutting speeds |
| Usable at significantly higher cutting speeds | > | Increased machine utilization and productivity |
| AlCrN-based material composition | > | Groundbreaking all-round coating |

BALINIT® ALCRONA PRO
More productivity and manufacturing reliability with a great width of application possibilities

Rely on a tool coating with application versatility

Carbide and HSS end mills, modular milling cutters

Roughing and finishing of

- Steel, up to 52 HRC
- Cast iron
- Wet, MMS and dry machining

Drills

Drilling in

- Steel, up to 52 HRC
- Cast iron
- Wet, MMS and dry machining

Carbide and HSS hobs, stick blades, shaper cutters

Gear cutting in

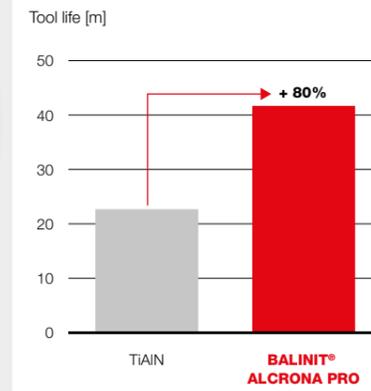
- Steel, up to 52 HRC
- Wet, MMS and dry machining

BALINIT ALCRONA PRO

The ideal solution for your end mills and hobs

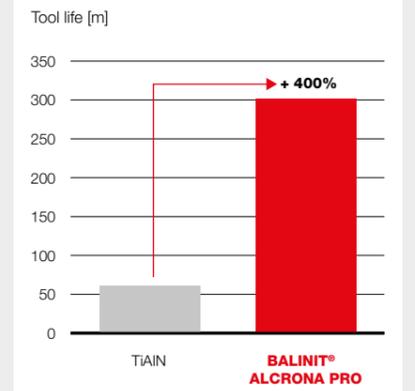


Rough milling, wet



Tool	Carbide end mill Ø 10 mm
Workpiece	Steel 1.2344 (AISI H13, SKD 61) 38 HRC, 1200 N/mm ²
Cutting data	$v_c = 175$ m/min $f_t = 0.05$ mm $a_e = 4$ mm, $a_p = 8$ mm 6% Emulsion
Source	Oerlikon Balzers cutting laboratory

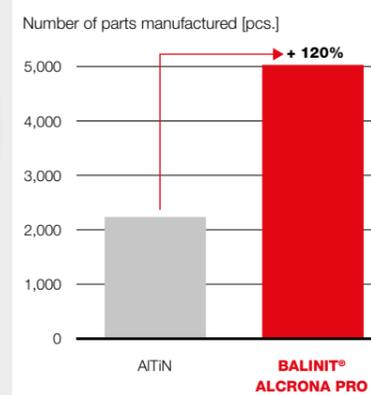
Wet machining of carbon steel



Tool	Carbide end mill Ø 8 mm, Z = 3
Workpiece	Steel 1.1191 (AISI 1045, S45C)
Cutting data	$v_c = 400$ m/min $f_t = 0.1$ mm $a_e = 0.5$ mm, $a_p = 10$ mm $VB_{max} = 0.12$ mm 6% Emulsion
Source	Oerlikon Balzers cutting laboratory

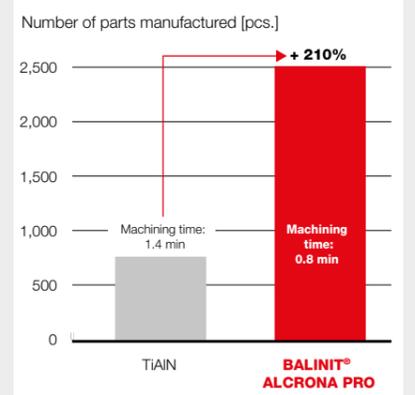


Hobbing: Increased service life



Tool	Hob, PM HSS
Workpiece	Steel 1.7131 (~ AISI 5120, ~SMnC 420(H))
Cutting data	$v_c = 200$ m/min VB ~ 0.3 mm dry
Source	Automobile manufacturer

Hobbing: Increased productivity and service life



Tool	Hob, PM HSS Ø 90 mm S390
Workpiece	Steel 1.6526 (~ AISI 8620, ~ SNCM 220 (H))
Cutting data	TiAlN: $f_t = 3$ mm $v_c = 110$ m/min with oil ALCRONA PRO: $f_t = 4$ mm $v_c = 146$ m/min with oil
Source	Automotive supplier Sweden