

Reduce your tool costs with reconditioning

BALINIT® LATUMA 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 LATUMA high-performance coating
Contact us now!

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BALINIT LATUMA Versatility wins

First-class performance in milling,
drilling and turning



Cutting Tools



BALINIT LATUMA

Make your machining operations a model for success

Tool manufacturers, mechanical engineering, the aircraft industry and reconditioners can look forward to even more versatility and performance. With BALINIT® LATUMA, developed on the basis of the BALINIT® coatings FUTURA NANO and X.CEED, it offers you decisive advantages. Not only is the machining and use of a wide variety of challenging materials even more productive now, the

process reliability under difficult working conditions is also increased at the same time. Employ this coating solution for indexable inserts and shank-type tools – take your metal processing business to new levels of success with BALINIT® LATUMA. Oerlikon Balzers, a global technology leader in hard coatings, helps you on the way.

Top coating properties lead to top results

OPTIMIZED PERFORMANCE

- | | | |
|---|---|---|
| The latest in source technology | > | Optimized layer structure and layer surface |
| High aluminium content | > | Superior oxidation resistance and hot hardness |
| Outstanding chemical stability | > | Optimal crater wear resistance |
| Balancing of residual stress and coating hardness | > | Broad application range |
| Optimized thermal shock resistance | > | Ideal for wet and dry machining |
| High cutting speeds and feed rates | > | Enhanced productivity |

BALINIT® LATUMA
More productivity, process reliability and efficiency in machining operations

Rely on a tool coating with application versatility

Milling and turning with indexable inserts

Milling in

- Stainless steel, HRSA
- Cast iron
- Steel

Turning in

- Stainless steel for finishing operations

Milling with carbide and HSS end mills

Milling in

- Stainless steel, HRSA
- Cast iron
- Difficult-to-machine tool steels and high-alloy steels
- High-strength, hardened steels

Drilling with carbide and HSS drills

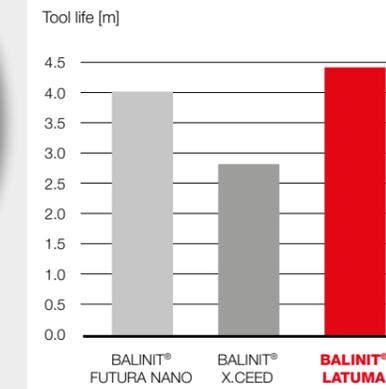
Drilling in

- Stainless steel, HRSA
- Cast iron
- Difficult-to-machine tool steels and high-alloy steels
- High-strength, hardened steels

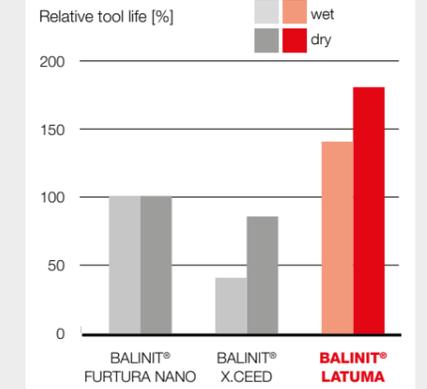
Convincing results with the use of BALINIT LATUMA coatings on indexable inserts and end mills



Face milling in steel, dry



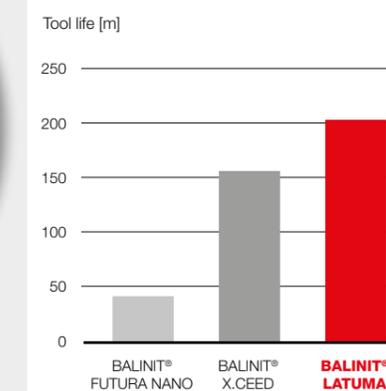
Turning in stainless steel, wet and dry



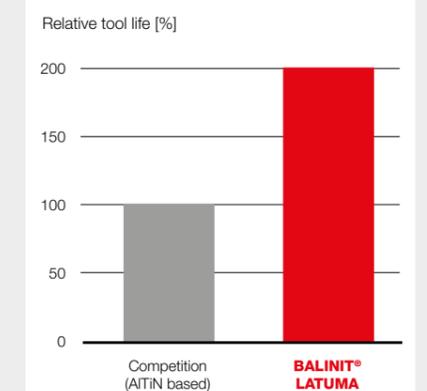
Parameter	BALINIT® FUTURA NANO	BALINIT® X.CEED	BALINIT® LATUMA
Tool	Carbide insert ADMT	Carbide insert CNMG432	Carbide insert CNMG432
Workpiece	Steel 1.7225 (AISI 4140, SCM 440), 900 N/mm ²	Steel 1.4571 (AISI 316Ti, SUS 316Ti)	Steel 1.4571 (AISI 316Ti, SUS 316Ti)
Cutting data	$v_c = 185$ m/min $f_t = 0.2$ mm/rev $a_p = 3$ mm VB = 0.15 mm dry	$v_c = 120$ m/min $f_t = 0.25$ mm/rev $a_p = 2$ mm VB = 0.30 mm dry	$v_c = 180$ m/min $f_t = 0.25$ mm/rev $a_p = 2$ mm VB = 0.25 mm wet
Source	Oerlikon Balzers cutting laboratory	Oerlikon Balzers cutting laboratory	Oerlikon Balzers cutting laboratory



Milling in hot-working steel



Drilling in steel



Parameter	BALINIT® FUTURA NANO	BALINIT® X.CEED	BALINIT® LATUMA
Tool	Carbide end mill, Ø 10 mm	Carbide end mill, Ø 10 mm	Carbide drill, Ø 6,0 mm
Workpiece	Steel 1.2344 (AISI H13, SKD61), 45 HRC	Steel 1.2344 (AISI H13, SKD61), 45 HRC	Steel 1.0503 (AISI 1045, S45C)
Cutting data	$v_c = 180$ m/min $f_t = 0.1$ mm/rev $a_p = 10$ mm $a_e = 0.5$ mm VB = 0.10 mm Emulsion	$v_c = 180$ m/min $f_t = 0.1$ mm/rev $a_p = 10$ mm $a_e = 0.5$ mm VB = 0.10 mm Emulsion	$v_c = 80$ m/min $f_t = 0.25$ mm/rev $L_D = 4xD$ VB = 0.15 mm Emulsion
Source	Oerlikon Balzers cutting laboratory	Oerlikon Balzers cutting laboratory	Tool manufacturer