

# BALINIT HARD CARBON

Enabling productive processing  
of non-ferrous metals



**Metal Forming**



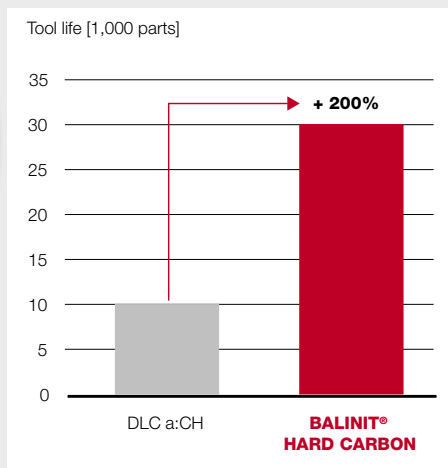
# BALINIT HARD CARBON for processing non-ferrous materials

Processing non-ferrous metals presents a unique range of challenges. Material adhesion and galling are a constant issue leading to downtime and high tool usage.

BALINIT® HARD CARBON with its unique coating architecture enables the production of these materials, keeping the tools cutting edges sharp and eliminating galling and cold welding.



## BALINIT HARD CARBON – forming of 4 mm thick aluminium



<b>Tool</b>	Punch X155CrMoV12 1.2379 D2 58-60 HRC 120 x 116 x 53 mm
<b>Workpiece</b>	Alu 7075-T0 – 4 mm
<b>Challenge</b>	- Reduce appearance defects due to sticking - Reduce polishing time
<b>Solution BALINIT® HARD CARBON</b>	- Lower scrap rate - Less polishing time - Better productivity

## BALINIT HARD CARBON – the solution for a range of challenges

- High hardness v traditional DLC coatings
- Arc process allows complex shapes to be treated
- Unique rainbow colour possible
- Sharp cutting edges / no edge rounding
- Extremely thin coatings possible
- High control of coating thickness
- Strip & recoating possible

## Take advantage of outstanding coating properties

	BALINIT® HARD CARBON
Coating material	ta-C
Thickness [µm]	0.2 – 2.5
Process temperature [°C]	< 150
Max. service temperature [°C]	500
Coating hardness H <sub>T</sub> [GPa]	50 – 60
Coating colour	rainbow/black

All given data are approximate values and dependent on application, environment and test conditions.

## Benefit from the BALINIT HARD CARBON coating solutions Contact us now!

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