

Cleaning recommendations for BALINIT® PVD-coated surfaces

The PVD process is used to apply very thin but hard and wear-resistant coatings to the surface of tools and components. These coatings are twice as hard as cemented carbide, but no more than 10 µm thick, just 1/10 of the thickness of a human hair. This combination of hardness and very thin coating therefore requires careful handling when maintaining and cleaning coated surfaces.

Recommended cleaning procedure

Caution!

If there are heavy deposits on the surface, you must never let the tool/component cool down completely. If it does, the melt will stick to the surfaces and will no longer be removeable without damaging the coating.

Cleaning when warm

- Clean with a conventional oven cleaner
- Clean with $\leq 3\mu\text{m}$ diamond paste
- Clean with isopropanol / acetone

Cleaning when cold

- Blast with dry ice (CO_2)
- Clean with $\leq 3\mu\text{m}$ diamond paste
- Ultrasonic cleaning with an alkaline cleaning agent at max. 60°C

Do not use

- Mechanical cleaning devices such as rotating brushes or similar
- Cleaning devices made out of steel or tools coated solely with brass
- A flame for heating/cleaning, as temperatures $> 600^\circ\text{C}$ will destroy the coating
- Scouring agents
- Alumina or other abrasives for dry blasting
- Sandpaper with coarse grit < 1200
- Acidic cleaning agents → leads to corrosion

Surfaces such as high-gloss polished and/or structured surfaces may require different types of cleaning. Please contact your Oerlikon Balzers representative if you have any questions. Any liability is excluded.