

CERALTIN® 111



Description

Coating

- AlTiN, TiAlN, ZrN
- TiSiN
- Al₂O₃
- Si, DLC (Ti/Ta, Si)

Substrate

- Hartmetall (K, M, P)
- Titan

Description

CERALTIN® 111 is an already proved product for decoating carbide tools with monolithic, high-Alumina containing PVD coatings like AlTiN or AlCrN/ALCRONA. It's also utmost suitable for Alumina-Oxide Al₂O₃ applied by CVD.

The retained surface of carbide tools keeps its origin brilliance due to the smoothprocess. CERALTIN® 111 is for this predestinated also for decoating of brandnew toolings

Toolings and/or components made of TITANIUM can be decoated or even treated with CERALTIN® 111 without any restrictions.

Treatment with CERALTIN® 111 is a simple diving process and operable without any danger; the solution is very stable, not any exothermic reaction can occur due to absence of any Hydrogen Peroxide.

The liquid concentrate ist o be heated up undilluted up to 120°C and immediately ready to use. The average stripping ratio achievable are between 0,4-1µm/h under optimal conditions.

CERALTIN® 111 is available in 10l- cans or 200l-drums.

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Special features

Special features of this simple diving process are perfect surfaces after decoating, the comparably ease handling and the high capacity which make this kind of decoating very cost effective.

If a TiN comes up after removal the overlaid coatings we recommend further treatment in UNICERAL® 108 which is always compatible for a treatment after using CERALTIN® 111 prior to it.

Capacity/costs

CERALTIN® 111 has a high capacity and provides a long termed lifespan of bath. In average 5-10 batches each filling are usually processable.

For example loading capacity of 20 liter CERALTIN® 111 with toolings of D10*70mm

	Quantity of drills	Price per piece (€)
20 liter <i>Uniceral® 108</i> / 5 batches	1.000	0,14
20 liter <i>Uniceral® 108</i> /10 batches	2.000	0,07

Set up

Fill in CERALTIN® 111 undilluted to level as required, thenafter heat up solution to 120°C and keep bath on temperature; the decoating bath is now ready to use.

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Decoating

Insert toolings and components free of fats or oils (otherwise clean them prior to decoating) in so heated up solution as far as parts are completely covered with liquid; it is to be considered that filling level can drop down a little due to evaporation losses; compensate any vapour losses by adding Deionised water or CERALTIN[®] 111.

For upload of toolings baskets made of carbon steel are most suitable. One *must not* use baskets made of stainless steel (danger of damaging tools due to local element).

After accomplished decoating take off parts and rinse with plenty of tap water, especially also cooling wholes if present; thereafter dry parts with hot air (80-120°C).

To reduce evaporation losses remarkably (up to 70%) one can cover bath with polymer balls which are available by ab solut decoating technology.

Durations

Referring to a 2µm coating and to optimal technical parameters an AlTiN requires a duration of approx 4-8 hours; Chromium as a part of coating consistence as well as nano structured coatings have a dominant influence on decoating duration. The same is valid also for carbon containing coatings like DLC/Si as the accessibility of soluble phase (Silicon) is restricted by overlaid chemically inert phase (DLC).

Basically the overall exposition of parts doesn't matter in case of proper handling as no Cobalte leeching can occur. For this decoating processes can be operated safely and easily overnight or even during weekend in spite of fact that decoating duration is much shorter in almost cases.

Working safety

Decoating with CERALTIN[®] 111 allows a very safe working with always reproducible results in case of proper application. Solution cannot overboil or develop combustible vapours or gases.

CERALTIN[®] 111 must not get in contact with acids or acidic compounds which can cause dropping outs in solution and demination of bath activity as well as severe corrosion effects onto immersed parts.

According to Public Rules treating bathes which are heated up must not run without aspiration systems. This also is valid for use of CERALTIN[®] 111.

For all operations at decoating vessel filled up with CERALTIN[®] 111 the wear of sufficient protection clothes (eye protection, gloves, skirts) is obligated.

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Environmentals

After neutralization waisted solutions can be drained into sewage or added to waisted alkaline cleaners under consideration of Local Public Rules.