



# UNICERAL 308

Acidic liquid product for the decoating of titanium, aluminium or zirconium PVD layers on carbide tools.



## CUTTING TOOLS RANGE

### COMPATIBILITY

- Substrates:
  - Tungsten carbide
  - Cermet
  - PCD (polycrystalline diamond)
  - CBN (cubic boron nitride)
  - HSS (alloy)
  - HSS (PM steel)
  - HSSE (with cobalt in alloy)
  - Stainless steel
  - Titanium\*
  - Ni-Cr superalloys
- Coating:
  - TiN
  - TiCN
  - TiAlN
  - AlTiN
  - TiSiN
  - TiSiAlN
  - TiO, TiON
  - TiB<sub>2</sub>
  - ZrN, ZrON, ZrCN
  - Multilayered PVD

\*For the removal of anodization only.

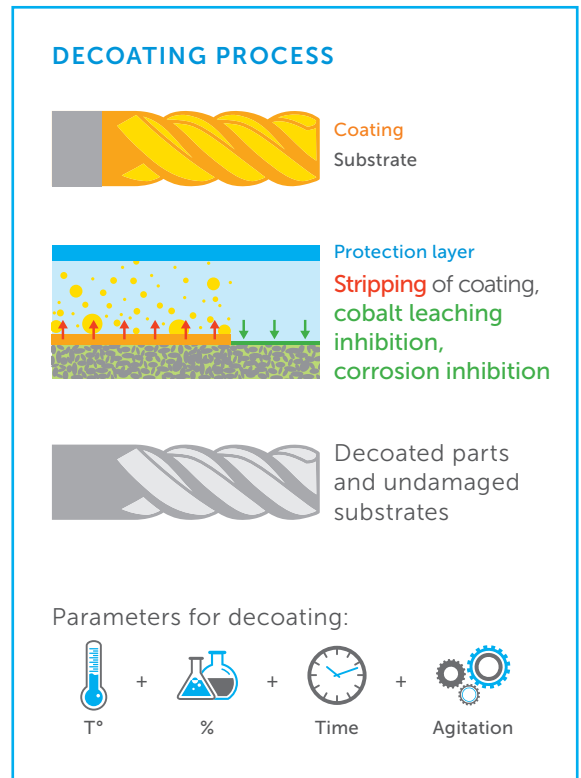
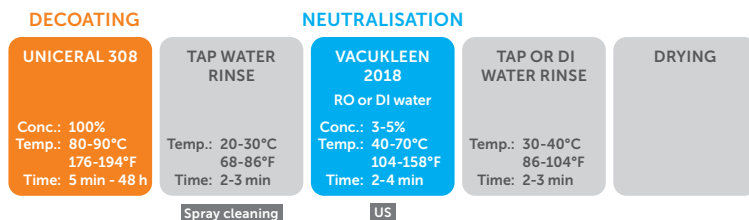
### PHYSICOCHEMICAL DATA

- pH concentrated: 4
- Density: 1
- Appearance: Colorless / yellow

### INSTRUCTIONS FOR USE

- Tank compatibility: only high grade stainless steel
- Uniceral 308 is ready to use and must be used at 100% concentration
- Do not add water, no ultrasonic
- Temperature: 80-90°C (176-194°F)
- Kinetic reactions: immediate to several days depending on the nature of the layer
- Bath agitation improves performances, ensure agitation does not disturb the protection layer
- A smooth and undisturbed liquid surface ensures extremely low evaporation and safe working conditions
- The bath must be placed under a hood or in a machine equipped with an air extractor
- The mixture must be disposed of as hazardous waste

### PROCESS EXAMPLE



21/09/23

### STORAGE CONDITIONS

- Keep hermetically sealed
- Keep the container between 5°C and 40°C (41 and 104°F) in a dry place
- Always keep in packaging made from the same material as the original packaging (HDPE)



For any other decoating operation; please contact NGL Cleaning GmbH which can offer you the services of its top of the art decoating facility.





## MATRIX COATING / SUBSTRATE / COATING THICKNESS / TIME:

SUBSTRATES	COATINGS							
	TiCN	TiN, TiAlN, AlTiN	TiSiN, TiSiAlN	ZrN, ZrCN	AlCrN, AlCrSiN	DLC: Cr, CrN adhesion layer	DLC ta-C/ DLC a-C/ DLC a-C:H	CrN
CARBIDE	U308	U308	U308	U308	C211	x	x	x
Time	1-2µ 18-24h / 2-3µ 48-72h / 3-5µ 3-6d	1-2µ 8-24h / 2-3µ 24-48h / 3-5µ 24-72h	1-2µ 8-24h / 2-3µ 24-48h / 3-5µ 24-72h	1-10h	1-2µ 24-72h / 2-3µ 48h-5d / 3-5µ 3-10d	-	-	-
HSSE (with cobalt in the alloy)	U308	U308	U308	U308	E222, possible cobalt leaching	E222, possible cobalt leaching	y	E222, possible cobalt leaching
Time	1-2µ 18-24h / 2-3µ 48-72h / 3-5µ 3-6d	1-2µ 8-24h / 2-3µ 24-48h / 3-5µ 24-72h	1-2µ 8-24h / 2-3µ 24-48h / 3-5µ 24-72h	1-10h	45-180 min	45 min-48h	-	20-120 min
HSS	F56	F56	F56	U308	E222	E222	y	E222
Time	3-6h	1-3h	1-3h	1-10h	20-120 min	45 min-48h	-	20-120 min
HSS (without cobalt in the alloy)	F56	F56	F56	U308	E222	E222	y	E222
Time	3-6h	1-3h	1-3h	1-10h	20-120 min	45 min-48h	-	20-120 min
TOOL STEEL	F56	F56	F56	U308	E222	E222	y	E222
Time	3-6h	1-3h	1-3h	1-10h	20-120 min	45 min-48h	-	20-120 min
STAINLESS STEEL	F56	F56	F56	U308	E222	E222	y	E222
Time	3-6h	1-3h	1-3h	1-10h	20-120 min	45 min-48h	-	20-120 min
NICKEL-CHROMIUM-BASED SUBSTRATES	F56	F56	F56	U308	E222	E222	y	E222
Time	3-6h	1-3h	1-3h	1-10h	20-120 min	45 min-48h	-	20-120 min

x - no solution

y - no solution if no Cr/CrN adhesion layer available

The decoating matrix is a schematic abstract. Due to the high substrate/coating diversity the classification for compatibilities can't be generalized and must be confirmed by test before use.

### Decoating bath temperatures:

- U308: Uniceral 308 (80-90°C (68-86°F) / bath circulation required)
- F56: Ferrodec 56 (60-80°C (140-176°F) / usually 70°C (158°F)
- E222: Excarbonite 222 (40-70°C (104-158°F) / usually 55°C (131°F)/ bath circulation required
- C211: Ceraltin 211 (130-140°C (266-284°F)



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