FERRODEC 56

Powdered product for the decoating of aluminium or titanium based layers on steel tools.

CUTTING TOOLS RANGE

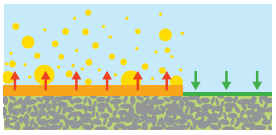
COMPATIBILITY

- Substrates:
  - Stainless steel
  - HSS
  - HSS (PM steel)*
  - HSSE (with cobalt in alloy)*
  - Other tool steels

* Only in use with plastic baskets and holders.

- Coatings:
  - TiN
  - TiCN
  - AlTiN
  - DLC / Ti
  - TiAlSiN
  - TiAlN
  - TiSiN
  - TiC
  - TiCu

DECOATING PROCESS



Parameters for decoating:

PHYSICOCHEMICAL DATA

- pH (1%): 7.5
- Density: 965kg/m^3 ±5%
- Appearance: White powder

INSTRUCTIONS FOR USE

- Concentration: 30-200g/l dissolved into DI water
- Hydrogen Peroxide (35-50% grade): 10% of total volume
- Temperature: 60-80°C (140-176°F)
- Kinetic reactions: 1 hour to 5 hours depending on the nature of the coating
- Ultrasonics or bath agitation improve performances significantly
- The bath must be placed under a hood or in a machine equipped with an air extractor
- The mixture must be disposed as hazardous waste

PROCESS EXAMPLE

DECOATING

FERRODEC 56	TAP WATER RINSE	DI WATER RINSE	DRYING
+ Hydrogen Peroxide DI water Conc.: 30-200g/l Temp.: 60-80°C 140-176°F Time: 1-5 h	Temp.: 20-30°C 68-86°F Time: 2-3 min	+ Corrosion protection Temp.: 30-40°C 86-104°F Time: 2-3 min	

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)

21/06/23

Application Centre

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

NGL CLEANING GmbH - CHEMICAL & DECOATING TECHNOLOGY
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MADE IN GERMANY

DECOATING PRODUCT GUIDE

MATRIX COATING / SUBSTRATE / COATING THICKNESS / TIME:

	COATINGS							
SUBSTRATES	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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