ZESTRON® VD

Water-free precision cleaning medium for cleaning of electronic assemblies

ZESTRON® VD is a solvent-based cleaning agent designed to remove flux residues from electronic assemblies, ceramic hybrids, power modules and leadframes in closed-loop, one chamber, vapor degreasing type systems.

Areas of application: PCB's, ceramic hybrids & leadframes		**Additional product information:**
Low solid flux residues*	+	**Technical Information 2**: Overview of all fluxes and solder pastes tested
Rosin based flux residues*	+	
Water soluble flux residues*	0	**Technical Information 3**: Material compatibility overview
Solder pastes (unsoldered)	++	
SMT-adhesives or conductive adhesive	+	**Application Recommendation**: Specific process parameters for your cleaning trial
Thick film pastes	+	

++ highly recommended, best results + recommended 0 possible - not recommended
* Applies for all standard-, lead-free and eutectic solder pastes

Technical Centers - ① America, ② Europe, ③ Malaysia, ④ North-China, ⑤ South-China
Cleaning Process Solutions under Production Floor Conditions

Contact ZESTRON's Process Engineering Team for free-of-charge cleaning trials:
Phone: +49-841-635-26; Email: techsupport@zestron.com

Advantages compared to other cleaners:

- Due to its polar and nonpolar components, ZESTRON® VD has a wide field of application.
- Completely distillable and therefore suitable for one chamber vapor degreasing processes with vacuum distillation and a vapor rinsing step.
- ZESTRON® VD is surfactant-free and therefore dries residue-free.
- ZESTRON® VD is particularly suitable for water-free applications, especially when rinsing with water is not an option.
- ZESTRON® VD works exceptionally well for cleaning capillary spaces, i. e. underneath BGA's and flipchips.
- ZESTRON® VD can also be used for stencil cleaning and in SMT printers.

Please refer to the material compatibility list (Technical Information 3) before cleaning plastics.

ZESTRON® VD is approved by leading international cleaning machine manufacturers. Written approvals can be obtained from ZESTRON.

TECHNICAL INFORMATION 1

ZESTRON
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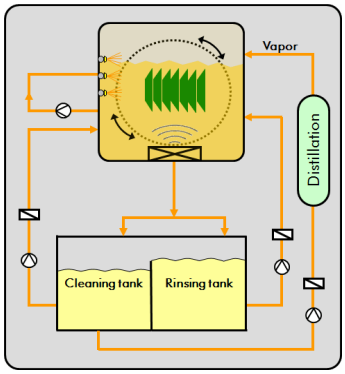
Process Steps	1. Cleaning	2. Rinsing	3. Drying
Closed-loop processes with vapor rinsing	ZESTRON® VD	ZESTRON® VD	Vacuum
Spray-in-air (explosion-proof)	ZESTRON® VD	ZESTRON® VD	Ambient or compressed air

Technical Data		
Density	(g/ccm) at 20°C/68°C	0.88
Surface tension	(mN/m) at 25°C/77°F	26.3
Boiling range	°C/°F	170 – 175 / 338 – 347
Flash point	°C/°F	62 / 144
pH-value	10g/l H_2O	Neutral
Vapor pressure	(mbar) bei 20°C/68°F	1.0
Cleaning temperature	°C/°F	40 – 45 / 104 – 113
Solubility in water		Insoluble
Application concentration	Ready-to-use	Pure
HMIS Rating	Health Flammability Reactivity	1 2 0

Process Scheme



PRODUCT FEATURES

Extensively tested and suitable for cleaning of lead-free solder pastes

Product is free of any critical substances according to SIN & SVHC lists

100% compliance with EU guidelines (RoHS 1 & 2, WEEE)

Environmental, health and safety regulations:

- ZESTRON® VD is solvent-based and biodegradable.
- The cleaner is formulated free of any halogenated compounds and is environmentally friendly.
- Refer to the MSDS for specific handling precautions and instructions.

Availability/Storage:

- ZESTRON® VD is available in 1l bottles, 5l or 25l containers and 200l drums.
- This product is a non-hazardous material.
- Store ZESTRON® VD in the original container at a temperature between 5 - 30°C / 41 - 86°F.
- The product has a minimum shelf life of 5 years in factory sealed containers.

Cleaning standards:

Electronic assemblies cleaned in a ZESTRON specified process with ZESTRON® VD meet the following industry standards:

- IPC-A-610 Visual cleanliness
- J-STD 001 Ionic and resin cleanliness
- IPC-TM 650 and DIN 32513 (surface resistance)
- J-STD 003 Solderability

Alternative product recommendation:

- For the removal of flux residues with an MPC® based medium in dip tanks, we recommend VIGON® US; for cleaning in spray-in-air applications, we recommend VIGON® A 201.