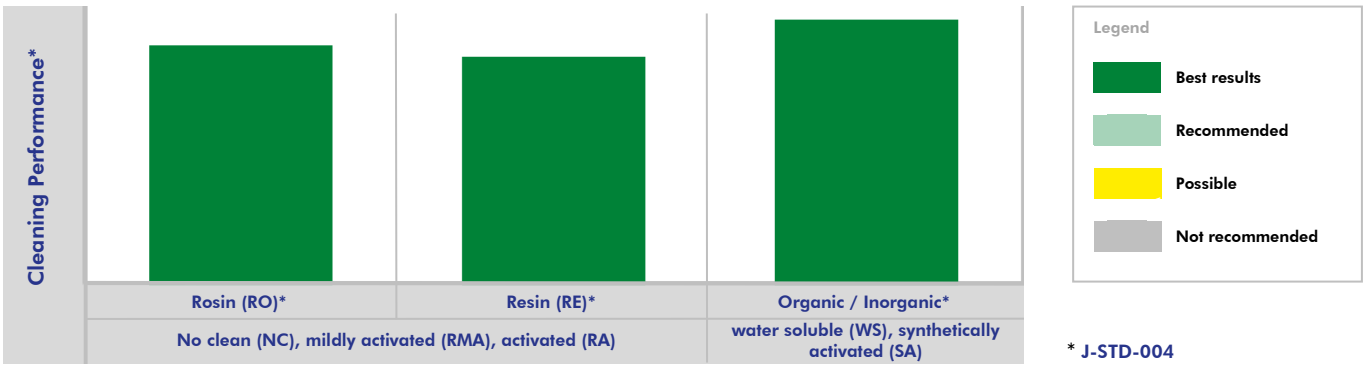
VIGON N 600

Water-based, pH-neutral defluxing agent

VIGON® N 600 is an innovative defluxing product with a revolutionary pH neutral formulation. The cleaning agent was developed for spray-in-air inline and batch cleaning applications but can also be used in dip tank processes. Its excellent cleaning performance and ability to remove a wide range of flux residues from electronic assemblies under pH neutral conditions is unprecedented. Due to its neutral pH value, the cleaning agent demonstrates a high level of material compatibility with sensitive metals and polymers.

Areas of application – PCBA Defluxing



* J-STD-004

Advantages compared to other cleaners

- Due to the neutral pH value, VIGON® N 600 demonstrates an unprecedented level of material compatibility on sensitive materials such as aluminum, brass or nickel, plastics, labels and inks.
- Performs well at low application concentrations in specific processes.
- Good results underneath low standoff components.
- Can also be used for cleaning power electronis and flip chip packages
- Increased wire bonding/molding quality for power modules, leadframe-based discrete components and Power LEDs
- Due to the pH neutral formulation it is easier to obtain the permission for sewage disposal.

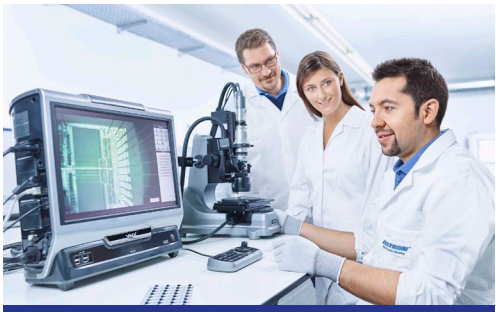
Process Steps

Cleaning Process	Parts	1. Cleaning	2. Rinsing	3. Drying
Spray-in-air (inline & batch)	PCBAs, (Power Modules, Power LEDs, Flip Chips)	VIGON® N 600	warm DI-water[1]	Hot air or circulating air
Dip tank (ideally with vacuum drying)	PCBAs, (Power Modules, Leadframe-based discretes)	VIGON® N 600	warm DI-water[1]	Hot air, ideally with vacuum drying

[1] The DI-water should have a temperature of 30-40°C.

Independent Test Center - Largest choice of leading machines, chemistry & analytics

Machine Test Center



Analytical Center

Visit our Machine Test Center and clean your electronic assemblies in cleaning machines of leading international equipment suppliers.

Your benefits:

- You are introduced to the cleaning machines & you clean your PCBAs under production conditions supported by your ZESTRON process engineer
- You check the cleaning results immediately on site (ROSE, optionally IR, IC, SEM/EDX etc.) for maximum comparability & result transparency
- You receive a process guarantee including detailed process parameters for the machine/cleaner combination that we recommend

Contact ZESTRON's process engineers for cleaning trials:

Europe: +49 8453 41995 318; techsupport@zestron.com / South Asia: +604 (3996) 100; support@zestronasia.com

Technical Data*

Density	(g/ccm) at 20°C/68°F	1.00
Surface tension	(mN/m) at 25°C/77°F	27.1
Boiling point	°C/°F	98 - 229°C / 208 - 444°F
Flash point	°C/°F	None until boiling
pH value	10g/l H_2O	Neutral
Vapor pressure	(mbar) at 20°C/68°F	Approx. 20
Cleaning temperature	°C/°F	40 - 70°C / 104 - 158°F
Solubility in water		Soluble
Application concentration[1] (inline)	Concentrate	7.5 - 20 %
Application concentration[1] (batch)	Concentrate	10 – 25 %
HMIS Rating	Health-Flammability-Reactivity	0 - 0 - 0

* Please note that the following information represents VIGON® N 600 at 15 % concentration.

[1] The concentrate of VIGON® N 600 has to be diluted in DI-water.

Product Features & Cleaning Standards

RoHS & WEEE Compliant	100% compliance with EU guidelines (RoHS 1, 2 & 3, WEEE)
PB lead-free	Extensively tested and suitable for cleaning lead-free solder pastes
MPC	MPC® Technology ensures an extremely long bath life when used in a closed loop system
Reach Compliant	Product is free of any critical substances according to SIN & SVHC lists

Electronic assemblies cleaned with VIGON® N 600 in a ZESTRON specified process meet the following industry standards:

- IPC-A-610 Visual cleanliness
- J-STD 001 Ionic and resin cleanliness and foreign object debris
- IPC 5704 Cleanliness requirements for bare boards
- IPC-Hdbk-65B Guidelines for cleaning of printed boards and assemblies

A cleaning process using VIGON N 600 can help to reduce particle contamination.

Environmental, health & safety regulations

- VIGON® N 600 is water-based and biodegradable.
- VIGON® N 600 is formulated free of any halogenated compounds.
- Refer to the SDS for specific handling precautions and instructions.

Availability & Storage

1 Liter	✓
5 Liter	✓
25 Liter	✓
200 Liter	✓

- Available as concentrate
- Store VIGON® N 600 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.

Further product information

- **Material Compatibility**
  Please review the Material Compatibility overview before using the cleaning agent.
- **MPC® Technology Sheet**
  Detailed information on MPC® Technology
- **Filter recommendation**
  To take full advantage of MPC® Technology and further extend the bath life of VIGON® N 600, filtration is recommended.
- **Safety data sheet**

Available Process –Optimization –Products

To ensure a stable running cleaning process, it is important to monitor cleaning agent concentration and regular bath treatment. For VIGON® N 600 a variety of process support products are available:

Concentration measurement:
- ZESTRON® EYE for automated real-time concentration monitoring providing 100% traceability,
- ZESTRON® Bath Analyzer 20, a manual test method for fast and reliable checks on cleaner concentration.