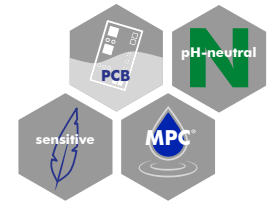


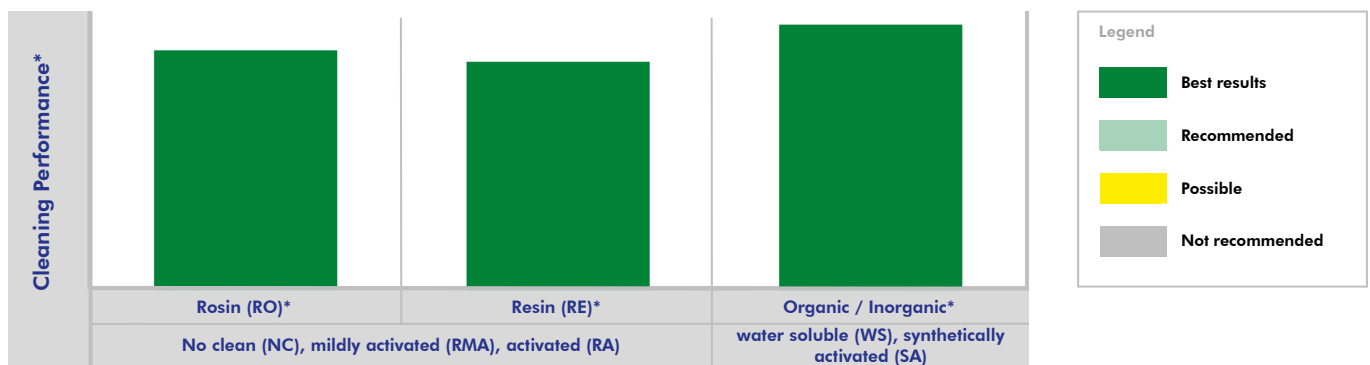
VIGON® N 600

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 electronics 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: Phone +49 (841) 63526; techsupport@zestron.com / South Asia: Phone +604 (3996) 100; support@zestronasia.com

Or visit our website for a virtual tour: <http://www.zestron.com/en/company/virtual-company-tour.html>

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 ₂ O | 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

| | | |
|--|---|---|
| | 100% compliance with EU guidelines (RoHS 1, 2 & 3, WEEE) | Electronic assemblies cleaned with VIGON® N 600 in a ZESTRON specified process meet the following industry standards: <ul style="list-style-type: none"> ▪ IPC-A-610 Visual cleanliness ▪ J-STD 001 Ionic and resin cleanliness ▪ IPC 5704 Cleanliness requirements for bare boards ▪ IPC-Hdbk-65B Guidelines for cleaning of printed boards and assemblies |
| | Extensively tested and suitable for cleaning lead-free solder pastes | |
| | MPC® Technology ensures an extremely long bath life when used in a closed loop system | |
| | Product is free of any critical substances according to SIN & SVHC lists | |

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.