

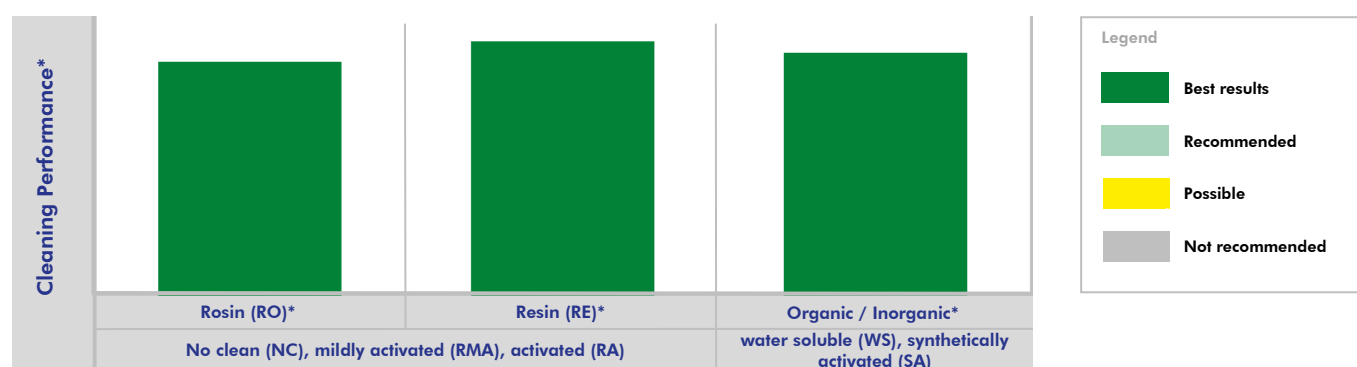
## VIGON® PE 215N

### pH-neutral defluxing agent for Power Electronics



VIGON® PE 215N is a water-based, pH-neutral cleaning agent specifically developed for the use in spray-in-air equipment. Based on the MPC®-Technology, the cleaning agent reliably removes flux residues from power electronics parts and is especially suitable for the cleaning of power modules, e.g. after die attach and heatsink soldering. VIGON® PE 215N provides very good material compatibility and copper deoxidation at the same time and prevents reoxidation of copper surfaces, resulting in optimally prepared surfaces for subsequent processes such as wire/adhesive bonding and moulding.

### Areas of application – Defluxing of Power Electronics



\* J-STD-004

### Advantages compared to other cleaners

- Excellent defluxing performance for Power Electronics / Power Modules.
- Provides stain-free, activated copper surfaces for subsequent wire bonding, moulding or adhesive bonding.
- Formulated for effective rinsing, prevents reoxidation of Cu surfaces.
- Retains activated copper surfaces over an extended period of time.
- pH-neutral, therefore excellent material compatibility, specifically with dies, leaving the passivation intact.
- No flash point and no foaming, thus applicable in all spray-in-air equipment without explosion proof.
- Also possible to be used in ultrasonic dip tanks machines.

### Process Steps

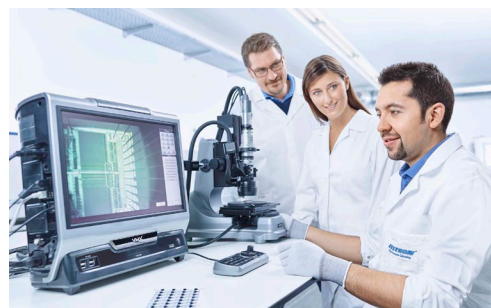
Cleaning Process	Parts	1. Cleaning	2. Rinsing	3. Drying
Spray-in-air (inline & batch)	Power Electronics	VIGON® PE 215N	DI-water <sup>1</sup>	Hot air or circulating air
Dip tank (US)	Power Electronics	VIGON® PE 215N	DI-water <sup>1</sup>	Hot air or circulating air (also with vacuum drying)

<sup>1</sup> The DI-water should have a temperature of 20-40°C/68-104°F.

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



Machine Test Center



Analytical Center

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

### Your benefits:

- You are introduced to the cleaning machines & you clean your power electronics 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](mailto:techsupport@zestron.com) / South Asia: +604 (3996) 100; [support@zestronasia.com](mailto:support@zestronasia.com)





## Technical Data\*

Density	(g/ccm) at 20°C/68°F	0.99
Surface tension	(mN/m) at 25°C/77°F	27.3
Boiling point	°C/°F	> 98°C / > 208°F
Flash point	°C/°F	None until boiling
pH value	10g/l H <sub>2</sub> 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 <sup>1</sup> (inline)	Concentrate	15 - 20 %
Application concentration <sup>1</sup> (batch)	Concentrate	15 - 25 %

\* Please note that the following information represents VIGON® PE 215N at 20 % concentration.

<sup>1</sup> The concentrate of VIGON® PE 215N has to be diluted in DI-water.

## Product Features & Cleaning Standards

 <p>100% compliance with EU guidelines (RoHS 1, 2 &amp; 3, WEEE)</p>	<p>Electronic assemblies cleaned with VIGON® PE 215N in a ZESTRON specified process meet the following industry standards:</p> <ul style="list-style-type: none"> <li>■ IPC-A-610 Visual cleanliness</li> <li>■ J-STD 001 Ionic and resin cleanliness and foreign object debris</li> <li>■ IPC 5704 Cleanliness requirements for bare boards</li> <li>■ IPC-Hdbk-65B Guidelines for cleaning of printed boards and assemblies</li> </ul> <p>A cleaning process using VIGON® PE 215N can help to reduce particle contamination.</p>
 <p>Extensively tested and suitable for cleaning lead-free solder pastes</p>	
 <p>MPC® Technology ensures an extremely long bath life when used in a closed loop system</p>	
 <p>Product is free of any critical substances according to SIN &amp; SVHC lists</p>	

## Environmental, health & safety regulations

- VIGON® PE 215N is water-based and biodegradable.
- VIGON® PE 215N is formulated free of any halogenated compounds and environmentally friendly.
- 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® PE 215N 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® PE 215N, 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® PE 215N 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.