

VIGON® PE 180

Water-based, pH neutral defluxing agent for Power Electronics and PCBs



VIGON® PE 180, based on MPC® Technology (Micro Phase Cleaning), is a water-based, pH neutral cleaning agent specifically developed for use in spray-in-air equipment. VIGON® PE 180 removes flux residues from PCBs, lead frames, discrete devices, power modules, and power LEDs. The cleaning agent features good deoxidation of copper surfaces to prepare for subsequent processes such as wire/adhesive bonding and molding.

Areas of Application: Defluxing of Power Electronics and PCBs

Recommended Solder Paste Applications:	Additional Product Information
No Clean (NC)	Material Compatibility Overview
Water Soluble (WS)	
Rosin (R)	MPC® Technology Sheet
Rosin Mildly Activated (RMA)	
Rosin Activated (RA)	Safety Data Sheet

Applies to leaded and lead-free solder pastes and liquid fluxes

Key Benefits

- Excellent defluxing performance on Power Electronics and PCBs.
- Provides stain-free activated copper surfaces for subsequent processes such as wire bonding (gold and aluminum), molding and adhesive bonding.
- Its pH neutral formulation results in excellent material compatibility.
- Easily rinsed yielding a wide process window.
- Retains activated copper surfaces over an extended period of time without risk of reoxidation.
- No need for waste water neutralization.

Process Steps

Cleaning Process	Parts	1. Cleaning	2. Rinsing	3. Drying
Spray-in-air (inline & batch)	PCBs	VIGON® PE 180	DI-water	Hot air or circulating air
Spray-in-air (inline & batch)	Power Electronics	VIGON® PE 180	DI-water	Hot air or circulating air

Please refer to the Material Compatibility Overview prior to cleaning plastics.

Technical Data: VIGON® PE 180 at 15% Concentration

Density	(g/cm ³) at 20°C/68°F	0.99
Surface tension	(mN/m) at 25°C/77°F	29.2
Boiling point	°C/°F	> 98 / > 208
Flash point	°C/°F	None
pH value	10g/l H ₂ O	Neutral
Vapor pressure	(mbar) at 20°C/68°F	Approx. 20
Cleaning temperature	°C/°F	40 – 70 / 104 – 158
Solubility in water		Soluble
Application concentration ¹ (inline)	Concentrate	10 – 20%
Application concentration ¹ (inline)	Concentrate	15 – 20%
HMIS Rating	Health-Flammability-Reactivity	1 – 0 – 0

¹ VIGON® PE 180 is recommended to be diluted in DI-water

Product Features & Cleaning Standards



MPC® Technology ensures an extremely long bath life when used in a closed loop system



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



100% compliance with EU guidelines (RoHS 1, 2 & 3, WEEE)



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

Environmental, Health & Safety Regulations

- Biodegradable and environmentally-friendly material.
- Compliant with the latest ODS regulations and does not contain HAPs.
- 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® PE 180 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.



Process Optimization



To ensure a stable running cleaning process, it is important to monitor cleaning agent concentration. For VIGON® PE 180 the following process support product is available:

Concentration measurement:



- ZESTRON® EYE concentration monitoring systems accurately and automatically measure the cleaning agent concentration.
- ZESTRON® Bath Analyzer 20 is a manual test method for fast and reliable checks of cleaning agent concentration.

Contact ZESTRON's Application Engineering Team for more information or trials:
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