

pH-neutral cleaning medium for defluxing of power modules



VIGON[®] PM 105 is a water-based, pH-neutral cleaning medium specifically designed for the use in Inline equipment. Based on the MPC[®]-Technology, VIGON[®] PM 105 reliably removes flux residues after die attach or heat sinks soldering on Power Modules, discrete devices, etc. The cleaning agent ensures optimal surface cleanliness for subsequent wire bonding, coating or moulding processes.

Areas of application: Cleaning of Power Modules			Additional product information:
Solder Paste	No clean	+	Technical Information 3 : Material compatibility overview MPC® Technology Information Sheet : Additional information on MPC® Technology
	Water-soluble	++	
	Rosin based	++	
	High solids	++	
++ highly recommended, best results		+ recommende	ed 0 possible - not recommended

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: <u>techsupport@zestron.com</u>

Advantages compared to other cleaners:

- VIGON[®] PM 105 provides stainless, activated copper surfaces for subsequent wire bonding and moulding processes.
- VIGON[®] PM 105 retains activated surfaces over a temporary storage time.
- pH-neutral, therefore excellent material compatibility, specifically with dies, no attack of the passivation.
- Due to its MPC- formulation, VIGON[®] PM 105 can be effectively rinsed.
- VIGON[®] PM 105 has no flash point, does not foam and thus can be applied in all spray-in-air equipment without explosion proof.
- Formulated free of halogenated compounds and has a low odor.

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

North Asia Shanghai/Shenzhen-China infochina@zestron.com

South Asia Kulim–Malaysia infoasia@zestron.com

America Manassas, VA–USA infousa@zestron.com

Europe ngolstadt–Germany info@zestron.com

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Process Steps	1. Cleaning	2. Rinsing	3. Drying
Spray-in-air (inline process)	VIGON [®] PM 105	Warm DI-water ¹	Hot or circulating air

The DI-water temperature should be between 35-40°C/ 95-104°F.

Technical Data Please note that the information below represents VIGON [®] PM 105 at a concentration of 50%.				
Density	(g/ccm) at 20°C/68°F	0.99		
Surface tension	(mN/m) at 25°C/77°F	29.3		
Boiling range	°C/°F	98-229 / 208-444		
Flash point	°C/°F	None		
pH-value	10g/l H ₂ O	Neutral		
Vapor pressure	(mbar) at 20°C/68°F	Approx. 11.7		
Cleaning temperature	°C/°F	45-65 / 113-149		
Solubility in water		Soluble		
Application concentration	Concentrate ¹	50 %		
HMIS Rating	Health-Flammability-Reactivity	0 - 0 - 0		

¹The concentrate of VIGON[®] PM 105 has to be diluted in DI-water.

PRODUCT FEATURES



Extensively tested and suitable for cleaning of 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

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



Filter recommendation:

- To take full advantage of the MPC® Technology and further expand the bath life of VIGON[®] PM 105, filtration is recommended.
- For details, please request our "Filter Recommendation" sheet.

Environmental, health and safety regulations:

- VIGON[®] PM 105 is water-based and biodegradable.
- VIGON® PM 105 is formulated free of halogenated compounds and environmentally friendly.
- Refer to the MSDS for specific handling precautions and instructions.

Availability/Storage:

- VIGON® PM 105 is available as a concentrate in 11 bottles, 51 or 251 containers and 2001 drums.
- Store VIGON® PM 105 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 with VIGON® PM 105 in a ZESTRON specified process meet the following industry standards:

- J-STD 001 Ionic and resin cleanliness
- IPC-TM 650 and DIN 32513 (surface resistance)
- J-STD 003 Solderability
- J-STD 020 (including MSL1, TCT, PCT)

intoasia@zestron.com

infousa@zestron.com Manassas, VA–USA

Kulim-Malaysia

South Asia

America

ngolstadt-Germany info@zestron.com