



SENJU

Actual cleaning result overview for the most recent Products

All cleaning trials were conducted at ZESTRON's Application Technology Centers and illustrate the performance of different cleaning agents in combination with standard spray-in-air and ultrasonic equipment.

ZESTRON conducts comprehensive cleaning trials in its European, American and Asian Technical Centers. In collaboration with leading, global equipment manufacturers, ZESTRON's Technical Centers are featured with state-of-the-art cleaning processes such as spray-in-air, ultrasonic and spray-under-immersion. Therefore, ZESTRON's Technical Centers are most suited to perform any cleaning trials.

For further information or free-of-charge cleaning trials with your specific materials, please contact our Application Technology Team at: techsupport@zestron.com

The following cleaning testing has been conducted at both **Senju** and ZESTRON Application Technology Centers. Prior to these results, the board cleanliness level had been assessed successfully in accordance to the following standards:

Customer requirement	Methodology / Tools	Industry Standard
Visual Cleanliness	VHX macroscope made by Keyence, 20 to 200-fold magnification.	According to IPC-A-610 F
Free of organic flux activators	Selective organic flux activators detection ZESTRON® Flux Test	IPC-TM-650 Standard
Free of resin/rosin	Selective flux resins detection ZESTRON® Resin Test	Evaluation based on J-STD-001F

Maintenance Cleaning

- For the cleaning of condensation traps of reflow ovens and solder pallet we recommend ATRON® SP 200 for dip tank and ATRON® SP 400 for spray-in-air process
- For the manual cleaning of reflow ovens we recommend VIGON® RC101
- For the manual of residues from solder paste and fluxes we recommend VIGON® EFM
- For the automatic removal of SMT adhesive in dispenser needles in ultrasonic bench top equipment, we recommend ZESTRON® ES 200

Underside Wipe Stencil Cleaning in SMT printers (Approvals for DEK, MPM / Speedline, EKRA and other printers are available)

- For the cleaning with vacuum we recommend VIGON® SC 200 or VIGON® UC 160
- For the cleaning with vacuum we recommend ZESTRON® SW

	Result Key
+	Easily removable with standard process parameters
0	Removable with process optimization (e.g. with additives and/or longer cleaning time) or other ZESTRON cleaning agents
-	Difficult to remove with this cleaning agent, process optimization necessary
n	not tested yet

Process Parameters (depending on cleaning application): 2-10 minutes at 20-50°C/ 68-122°F

Solder paste (reflowed)

	VIGON®									HYDRON®	ZESTRON®		ATRON®	
	A 200	A 201	A 250	A 300	US	SC 202	N 600	PE 180	PE 200	SE 220	VD	FA+	AC 205	AC 207
M30-WDA-T8H	+	+	+	n	+	0	+	n	n	n	+	+	+	+
M31-GRN360-K1MK-V	0	0	-	n	-	0	+	n	n	n	n	+	+	0
M40-LS720HF-Type 4	0	-	+	n	0	n	+	n	n	n	n	+	-	0
M705-374FS-42-10	0	+	0	n	+	-	+	n	n	n	n	+	0	n
M705-GRN360-K1-V	0	0	0	0	-	0	0	n	n	n	n	+	0	0
M705-GRN360-K2-V	0	+	+	n	0	0	+	n	n	n	0	0	+	n
M705-GRN360-K1-VM	0	0	0	n	0	0	0	0	0	+	0	0	-	-
M705-LFAC19HF-Type 4	+	0	+	n	0	0	0	n	n	n	n	0	+	n
M705-RGS800HF	+	0	+	n	+	0	0	0	0	+	+	0	0	0
M705-SHF	-	0	-	n	-	0	0	n	n	n	n	+	0	n
M705-SKRT4	-	0	0	n	0	0	0	n	n	n	n	0	0	0
M731-GRN360-K1-V4	0	+	+	n	0	0	+	+	+	+	0	+	0	0
M794-GLV-HF-Type 4	0	+	0	n	+	-	0	0	0	+	0	+	-	-
OZ AT-221CM5-42-10	0	0	0	+	0	+	0	n	n	n	0	+	0	0
OZ-2062-221CM5-40-10	+	-	+	n	0	0	0	n	n	n	0	+	+	0
OZ-2062-279C(3)	+	-	-	n	0	+	0	n	n	n	-	+	0	n
OZ-2062-AC19-F13	0	+	+	n	+	n	0	n	n	n	+	+	+	n
S70G Serie	0	0	0	n	0	-	0	n	n	n	0	0	0	0

Solder paste (unsoldered)

	VIGON®			ZESTRON®			ATRON®
	SC	SC 200	SC 202	SD 100	SD 300	SD 301	SP 200
M30-WDA-T8H	+	+	+	+	+	+	+
M31-GRN360-K1MK-V	+	+	+	+	+	+	+
M40-LS720HF-Type 4	+	+	+	+	+	+	+
M705-374FS-42-10	+	+	+	+	+	+	+
M705-GRN360-K1-V	+	+	+	+	+	+	+
M705-GRN360-K2-V	+	+	+	+	+	+	+
M705-GRN360-K1-VM	+	+	+	+	+	+	+
M705-LFAC19HF-Type 4	+	+	+	+	+	+	+
M705-RGS800HF	+	+	+	+	+	+	+
M705-SHF	+	+	+	+	+	+	+
M705-SKRT4	+	+	+	+	+	+	+
M731-GRN360-K1-V4	+	+	+	+	+	+	+
M794-GLV-HF-Type 4	+	+	+	+	+	+	+
OZ AT-221CM5-42-10	+	+	+	+	+	+	+
OZ-2062-221CM5-40-10	+	+	+	+	+	+	+
OZ-2062-279C(3)	+	+	+	+	+	+	+
OZ-2062-AC19-F13	+	+	+	+	+	+	+
S70G Serie	+	+	+	+	+	+	+

Flux residues

	VIGON®								HYDRON®	ZESTRON®		ATRON®	
	A 200	A 201	A 250	A 300	US	SC 202	N 600	PE 200	SE 220	VD	FA+	AC 205	AC 207
385	+	+	+	n	+	+	+	n	n	-	+	+	n
WF-6400	0	+	0	n	0	0	0	n	n	0	0	+	n

All results were obtained under the following conditions:

Spray-in-air cleaning process

VIGON® A 200, VIGON® A 201, VIGON® A 250, VIGON® A 300, VIGON® N 600, VIGON® PE 180, VIGON® PE 200, VIGON® SC, VIGON® SC 200, VIGON® SC 202, ATRON® AC 205, ATRON® AC 207, ATRON® SP 200, ZESTRON® SD 100, ZESTRON® SD 300, ZESTRON® SD 301

Ultrasonic cleaning process

VIGON® US, VIGON® SE 220, ZESTRON® ES 200, ZESTRON® FA+, ZESTRON® VD