ZESTRON
High Precision Cleaning

Henkel

CLEANING AGENTS FOR MULTICORE-LOCTITE-HYSOL-ECCOBOND PRODUCTS

The detailed removability overview below summarizes the actual cleaning results obtained for the most recent Multicore–Loctite-Hysol-Eccobond 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.

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

Solder Paste (reflowed)-Part 1: We recommend the following cleaning agents

Solder Paste	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
CR32 (95A AGS 88.5)	0	0	0	n	0	0	0	n	n	n	0	0	0
CR32 (96SC AGS 88.5)	+	0	0	+	0	0	0	n	n	0	+	0	0
CR32 (SN62 AGS 89.5)	0	0	0	n	0	0	0	n	n	n	+	0	n
CR36 (96SC AGS 88.0)	+	0	+	+	0	0	0	n	n	+	+	0	n
CR36 (SN63 AGS 89.5)	0	0	0	n	0	0	0	n	n	n	0	0	n
GC10 (97SC DAP 88.5)	+	+	+	n	0	+	+	+	+	0	+	+	+
HF108 (96SC AGS 88.5)	0	0	0	n	+	0	+	n	n	n	+	0	n
HF108 (97SC AGS 88.5)	0	0	+	+	+	-	n	n	n	-	+	0	n
HF200 (96SC DAP+ 88.5)	0	0	0	n	+	0	0	n	n	n	+	0	n
HF200 (97SC AGS 88.5 AF5)	+	0	+	n	+	+	+	n	n	0	+	0	0
HF208 (97SC DAP 88.5)	0	0	0	n	+	0	0	n	n	n	0	0	n
HF212 (96SC AGS 88.5)	+	+	+	n	0	0	+	n	n	+	+	+	+
LF300 (96SC AGS 88.5)	+	+	+	+	0	0	0	n	n	0	+	0	n
LF310 (96SC AGS 88.0)	+	+	+	+	+	+	0	n	n	+	+	+	n
LF318 (96SC AGS 88.5V)	+	+	+	n	+	0	+	n	n	0	+	+	+
LF318 (96SC AGS 88.5)	+	+	0	+	0	0	+	n	n	0	+	+	+
LF318 (97SC AGS 88.5V)	+	+	+	n	+	0	+	n	n	n	+	0	n
LF318 (97SC DAGS 89V)	0	0	0	n	0	0	0	n	n	n	+	0	n
LF320 (96SC AGS 88.0)	0	+	0	0	0	0	0	n	n	n	0	0	n
LF328 (96SC AGS 88.5)	+	+	+	+	0	0	0	n	n	0	+	+	n
LF328 (97SC AGS 88.5)	0	0	0	n	0	0	0	n	n	n	+	0	n
LF600 (96SC AGS 88.5)	+	0	+	+	0	0	n	n	n	-	+	0	n
LF600 (96SC AGS 88.5V)	-	0	0	-	0	0	+	n	n	n	+	0	n
LF620 (97SC AGS 88.5V)	0	+	+	0	+	-	+	n	n	-	+	+	+
LF700 (96SC AGS 88.5)	0	+	0	0	+	0	+	n	n	n	+	0	n
LF700 (96SC DAP 88.5)	+	0	+	+	0	0	+	n	n	-	+	0	n
LF721 (97SC DAP 88.5V)	0	0	0	0	0	0	-	n	n	n	+	0	n
LF730 (97SC AGS 88.5V)	0	0	0	0	0	0	0	n	n	n	+	0	n
MP100 (SN62 AGS 90.0)	+	+	+	+	+	0	0	n	n	+	+	0	n
MP100 (SN63 AGS 89.5)	0	0	0	0	0	0	+	n	n	n	+	+	n
MP101 (SN62 AGS 89.5)	0	0	0	n	0	0	0	n	n	n	0	0	n
MP102 (SN62 ADP 90.0)	+	0	+	+	+	+	0	n	n	+	+	0	n

Maintenance cleaning of Multicore products

- For the cleaning of condensation traps of reflow ovens we recommend ATRON® SP 200 for dip tank and ATRON® SP 400 for spray-in-air processes
- For the manual cleaning of reflow ovens we recommend VIGON® RC 101
- For the manual removal of residues from solder pastes we recommend VIGON® EFM

The 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® SC 202, VIGON® N 600, VIGON® PE 200, ATRON® AC 205, ATRON® AC 207)

or

Ultrasonic cleaning process
(ZESTRON® FA$^+$, ZESTRON® VD, VIGON® US, HYDRON® SE 220)

CLEANING AGENTS FOR MULTICORE-LOCTITE-HYSOL-ECCOBOND PRODUCTS

Solder Paste (reflowed)-Part 2: We recommend the following cleaning agents

Solder Paste	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
MP200 (SN62 AGS 90.0)	0	0	0	n	0	0	0	n	n	n	+	n	n
MP200 (SN63 AGS 90.0)	+	+	+	n	0	0	0	n	n	n	+	+	n
MP218 (SN62 AGS 90V)	0	+	0	0	+	0	0	n	n	0	0	+	+
RA10 (HMP AAS 86V)	0	0	0	n	0	0	0	n	n	n	0	0	n
RM92 (SN62 AAS 88.0)	+	0	+	+	+	0	0	n	n	+	+	0	n
RM92 (SN62 DAS 90.0)	n	0	0	n	n	n	0	n	n	n	0	0	n
RM92 (SN63 AAS 90.0)	+	n	n	n	+	-	n	n	n	+	+	n	n
RM92 (SN63 DAS 90.0)	+	+	+	n	+	0	+	n	n	n	+	+	n
RP11 (SN62 AGS 89.5)	+	0	0	+	+	+	0	n	n	+	+	0	n
RP15 (SN62 AGS 89.5)	+	+	0	n	-	-	0	n	n	n	-	+	n
WS200 (SN62 AGS 88.0)	+	+	+	+	+	0	0	n	n	+	+	+	+
WS300 (97SC AGS 88.0V)	+	0	+	n	+	0	+	n	n	n	+	+	+
XP108 (96SC DAP+ 88.5)	0	0	0	+	+	-	n	n	n	-	0	0	n

Maintenance cleaning of Multicore products

- For the cleaning of condensation traps of reflow ovens we recommend ATRON® SP 200 for dip tank and ATRON® SP 400 for spray-in-air processes
- For the manual cleaning of reflow ovens we recommend VIGON® RC 101
- For the manual removal of residues from solder pastes we recommend VIGON® EFM

The 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® SC 202, VIGON® N 600, VIGON® PE 200, ATRON® AC 205, ATRON® AC 207)

or

Ultrasonic cleaning process
(ZESTRON® FA+, ZESTRON® VD, VIGON® US, HYDRON® SE 220)

CLEANING AGENTS FOR MULTICORE-LOCTITE-HYSOL-ECCOBOND PRODUCTS

Solder Paste (unsoldered): We recommend the following cleaning agents

Solder Paste	VIGON®			ZESTRON®			ATRON®
	SC	SC 200	SC 202	SD 100	SD 300	SD 301	SP 200
CR32 (95A AGS 88.5)	+	+	+	+	+	+	+
CR32 (96SC AGS 88.5)	+	+	+	+	+	+	+
CR32 (SN62 AGS 89.5)	+	+	+	+	+	+	+
CR36 (96SC AGS 88.0)	+	+	+	+	+	+	+
CR36 (SN63 AGS 89.5)	+	+	+	+	+	+	+
GC10 (97SC DAP 88.5)	+	+	+	+	+	+	+
HF108 (96SC AGS 88.5)	+	+	+	+	+	+	+
HF108 (97SC AGS 88.5)	+	+	+	+	+	+	+
HF200 (96SC DAP+ 88.5)	+	+	+	+	+	+	+
HF200 (97SC AGS 88.5 AF5)	+	+	+	+	+	+	+
HF208 (97SC DAP 88.5)	+	+	+	+	+	+	+
HF212 (96SC AGS 88.5)	+	+	+	+	+	+	+
LF300 (96SC AGS 88.5)	+	+	+	+	+	+	+
LF310 (96SC AGS 88.0)	+	+	+	+	+	+	+
LF318 (96SC AGS 88.5V)	+	+	+	+	+	+	+
LF318 (96SC AGS 88.5)	+	+	+	+	+	+	+
LF318 (97SC AGS 88.5V)	+	+	+	+	+	+	+
LF318 (97SC DAGS 89V)	+	+	+	+	+	+	+
LF320 (96SC AGS 88.0)	+	+	+	+	+	+	+
LF328 (96SC AGS 88.5)	+	+	+	+	+	+	+
LF328 (97SC AGS 88.5)	+	+	+	+	+	+	+
LF600 (96SC AGS 88.5)	+	+	+	+	+	+	+
LF600 (96SC AGS 88.5V)	+	+	+	+	+	+	+
LF620 (97SC AGS 88.5V)	+	+	+	+	+	+	+
LF700 (96SC AGS 88.5)	+	+	+	+	+	+	+
LF700 (96SC DAP 88.5)	+	+	+	+	+	+	+
LF721 (97SC DAP 88.5V)	+	+	+	+	+	+	+
LF730 (97SC AGS 88.5V)	+	+	+	+	+	+	+
MP100 (SN62 AGS 90.0)	+	+	+	+	+	+	+
MP100 (SN63 AGS 89.5)	+	+	+	+	+	+	+
MP101 (SN62 AGS 89.5)	+	+	+	+	+	+	+
MP102 (SN62 ADP 90.0)	+	+	+	+	+	+	+
MP200 (SN62 AGS 90.0)	+	+	+	+	+	+	+
MP200 (SN63 AGS 90.0)	+	+	+	+	+	+	+
MP218 (SN62 AGS 90V)	+	+	+	+	+	+	+
RA10 (HMP AAS 86V)	+	+	+	+	+	+	+
RM92 (SN62 AAS 88.0)	+	+	+	+	+	+	+
RM92 (SN62 DAS 90.0)	+	+	+	+	+	+	+
RM92 (SN63 AAS 90.0)	+	+	+	+	+	+	+
RM92 (SN63 DAS 90.0)	+	+	+	+	+	+	+
RP11 (SN62 AGS 89.5)	+	+	+	+	+	+	+
RP15 (SN62 AGS 89.5)	+	+	+	+	+	+	+
WS200 (SN62 AGS 88.0)	+	+	+	+	+	+	+
WS300 (97SC AGS 88.0V)	+	+	+	+	+	+	+
XP108 (96SC DAP+ 88.5)	+	+	+	+	+	+	+

Underside Wipe Stencil Cleaning in SMT printers:

- For the cleaning with vacuum we recommend VIGON® SC 200 or VIGON® UC 160
- For the cleaning without vacuum we recommend ZESTRON® SW

Approvals for DEK, MPM and EKRA printers are available.

The results were obtained under the following conditions:

Spray-in-air process in stencil cleaning equipment

CLEANING AGENTS FOR MULTICORE-LOCTITE-HYSOL-ECCOBOND PRODUCTS

Flux residues: We recommend the following cleaning agents

Flux	VIGON®						ZESTRON®		ATRON®	
	A 200	A 201	A 250	US	SC 202	N 600	VD	FA$^+$	AC 205	AC 207
6381-35	+	+	+	+	+	+	n	+	+	n
Hydro-X20	+	0	0	+	+	+	n	0	0	n
MF101	-	+	+	+	+	0	n	0	+	n
MF200	+	0	+	+	0	0	+	+	+	n
MF210	+	+	+	+	0	+	n	0	+	n
MF220	+	+	+	+	0	+	n	0	+	n
MF300	+	+	+	+	+	+	n	0	+	n
MF390HR	+	+	+	+	0	+	n	+	+	n
MFR301	+	+	+	+	0	+	+	+	+	n
PC21A	+	+	0	+	+	+	n	+	+	n
R41-01i	+	+	+	+	0	+	n	+	+	n
X32-10i	0	+	0	+	0	+	n	0	0	n
X32-10M	+	0	+	0	+	+	n	0	+	n
X33-08i	+	+	+	+	0	+	n	+	+	n
X33-09	0	+	0	+	0	+	n	0	0	n
X33S-07i	+	+	0	+	0	+	-	0	0	n

Maintenance cleaning of Multicore products

- For the cleaning of solder frames we recommend ATRON® SP 200 for dip tank and ATRON® SP 400 for spray-in-air processes
- For the manual removal of flux residues we recommend VIGON® EFM

The results were obtained under the following conditions:

Spray-in-air cleaning process
(VIGON®A 200, VIGON® A 201, VIGON® A 250, VIGON® SC 202, VIGON® N 600, ATRON® AC 205, ATRON® AC 207)

or

Ultrasonic cleaning process
(ZESTRON® FA$^+$, ZESTRON® VD, VIGON® US)

PRODUCT INFORMATION

Europe
Ingolstadt–Germany
info@zestron.com

America
Manassas, VA–USA
infousa@zestron.com

South Asia
Kulim–Malaysia
infoasia@zestron.com

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

CLEANING AGENTS FOR MULTICORE-LOCTITE-HYSOL-ECCOBOND PRODUCTS

Residues of SMT-Adhesives: We recommend the following cleaning agents

Adhesive	VIGON®			ZESTRON®		
	SC	SC 200	SC 202	SD 300	SD 301	ES 200
D 125 F3	0	+	+	+	+	+
D 125 F4	n	+	+	n	n	n
D 125 F5	+	+	+	+	+	n
D 125 F-DR	+	+	+	+	+	n
E6752	n	+	+	+	+	+
3609	+	+	+	+	+	+
3611	n	+	+	n	n	n
3612	0	+	+	n	+	+
3614	0	+	+	n	n	n
3616	+	+	+	+	+	+
3617	0	+	+	+	+	n
3619	n	+	+	n	n	n
3621	n	+	+	n	+	n
3622	+	0	0	+	+	+
3627	n	+	+	n	+	n
3629	n	+	+	n	+	n

The results were obtained under the following conditions:

Spray-in-air cleaning process
(VIGON® SC, VIGON® SC 200, VIGON® SC 202, ZESTRON® SD 300, ZESTRON® SD 301)

For the automatic removal of SMT adhesive in dispenser needles in ultrasonic bench top equipment, we recommend ZESTRON® ES 200.

Solder wire: We recommend the following cleaning agents

Solder wire	VIGON®						ZESTRON®		ATRON®	
	A 200	A 201	A 250	US	SC 202	N 600	VD	FA⁺	AC 205	AC 207
1055CFlux	0	0	0	0	0	0	n	0	0	n
381FluxWRMAP35Core	0	+	0	0	0	+	n	+	+	n
Crystal400	+	+	0	+	0	+	+	+	+	n
Crystal502	+	+	+	+	0	+	+	+	0	n
Crystal511	+	0	0	+	0	0	+	+	n	n
Ersin309	+	+	0	+	0	0	+	+	0	n
Ersin311	0	+	+	0	0	0	n	0	0	n
Ersin362	+	+	0	0	0	+	n	+	+	n
SMART1Core	+	0	0	0	0	0	n	0	0	n
X39	0	+	0	+	0	+	n	0	+	n
96SCHYDRO-X	+	+	+	+	+	+	n	+	+	n

The results were obtained under the following conditions:

Spray-in-air cleaning process
(VIGON®A 200, VIGON® A 201, VIGON® A 250, VIGON® SC 202, VIGON® N 600, ATRON® AC 205, ATRON® AC 207)

or

Ultrasonic cleaning process
(ZESTRON® FA⁺, ZESTRON® VD, VIGON® US)

+	Easily removable with standard process parameters
o	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

PRODUCT INFORMATION

Europe
Ingolstadt–Germany
info@zestron.com

America
Manassas, VA–USA
infousa@zestron.com

South Asia
Kulim–Malaysia
infoasia@zestron.com

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