

JS Super Gel Hand Roller Evaluation report

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SweeTec Limited

JS Super Gel Hand Roller

Excellent dust cleaning performance.

- JS Super Gel Hand Roller is developed for the production which required sophisticated requirement for cleanliness.
- The material for the roller is specially customized, then it has high durability and dust remove performance.



Advantages

- ✓ Higher durability performance compare to Silicon, Urethan, Butyl material.
- ✓ Flexible surface contact with the soft material.
- ✓ No expensive cleaner.
- ✓ ESD design handle, static free.
- ✓ Non silicon design

Specifications

Type number	Viscosity
JS15-M	Hard
JS15	Soft

Size	Length
150W	150mm roller
300W	300mm roller

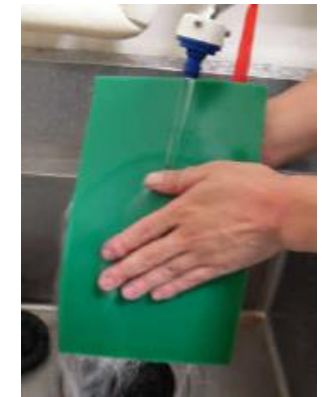


Specifications Option

Urethane mat is optional items. Dust can be removed by the standard adhesive paper.

Urethane mat is washable transcription mat. Possible to use continually by washing surface.

Urethane mat	Length
150W	150mm
300W	300mm



Four color for metal bar. Transparent is standard, Blue, Black and Red is available as option. (Additional price)
Color variation is to figure out the roller for each production process.

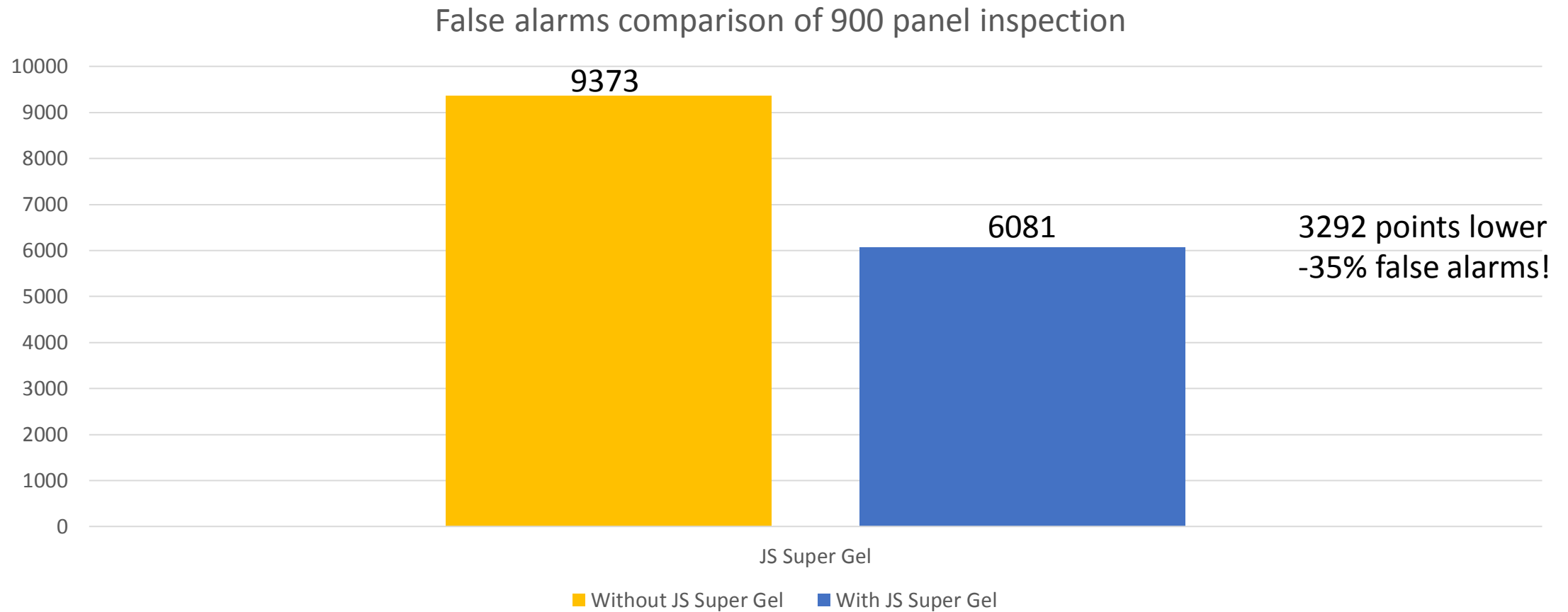
Test report: AOI false alarms

Use JS Super Gel Hand Roller to clean the board instead of normal clean roller.

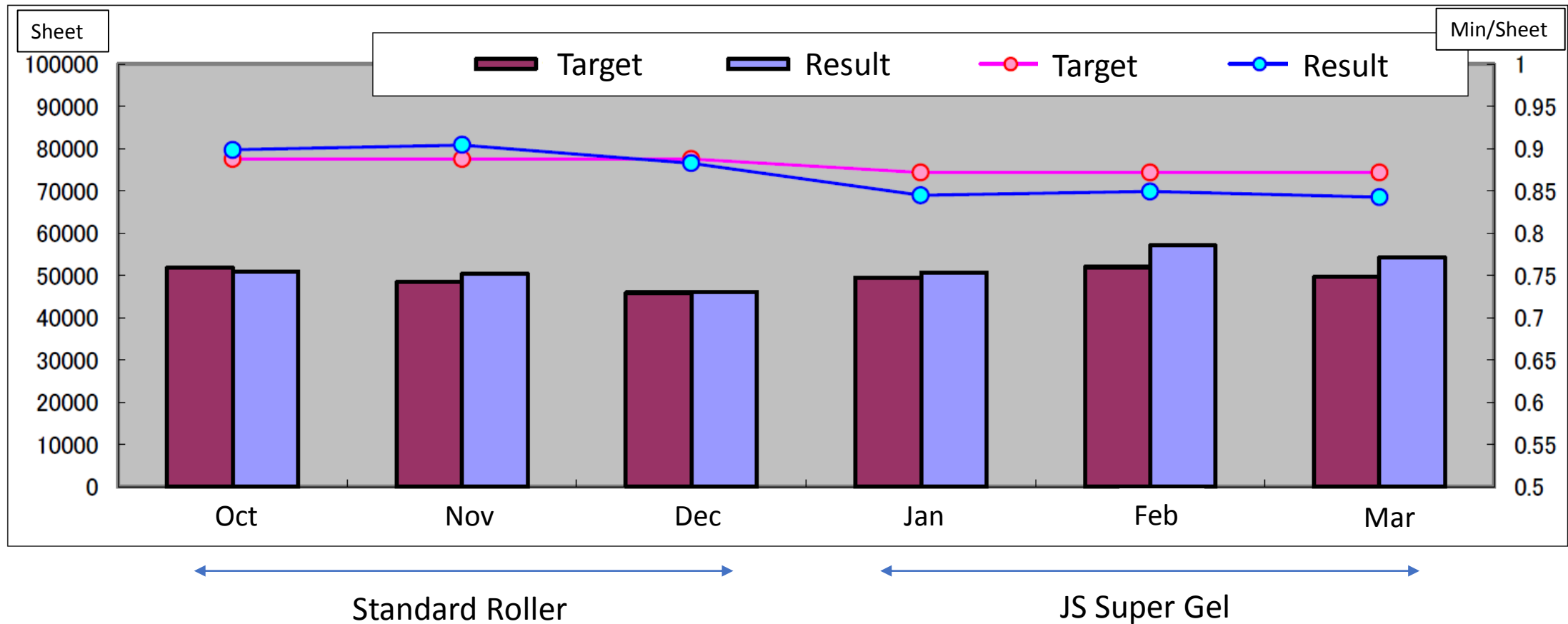
First clean by JS Super Gel and clean by normal clean roller again. Then check the number of dust on the adhesive sheet.

	COPPER	CARBON	FIBER	MATERIAL DUST
JS SUPER GEL	50	17	5	2
Standard Roller	5	0	1	0

Test report: AOI false alarms



Test report: AOI false alarms

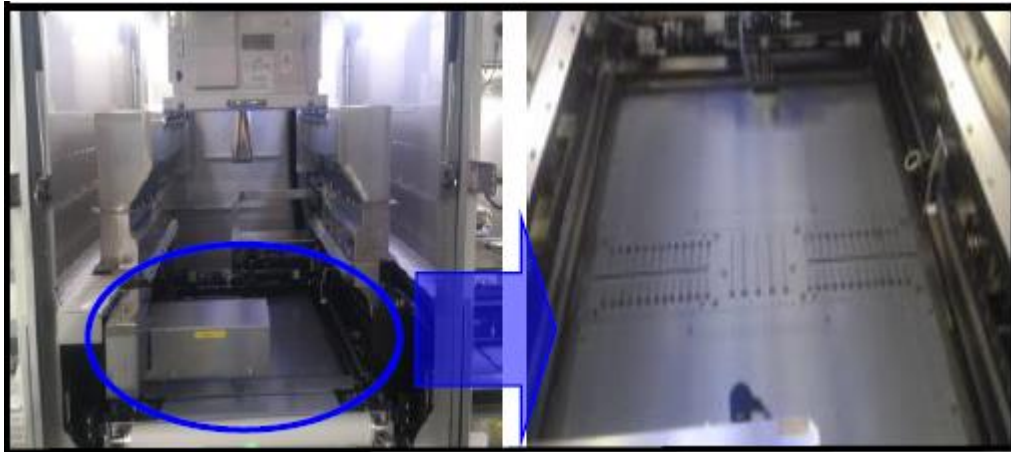


5% Faster AOI cycle time, ca5.000 sheet/month more

Test report: Exposure machine

Test purpose: To reduce dust in exposure machine, also for the table to arrange film.

Dust in these area causes scratch/peeling defect later.



Exposure machine



Table

Test report: Exposure machine

Problem

- ✓ Cleaning by the textile remain the fiber
- ✓ Residual ink on the table corner

Test

Comparison with the standard roller and JS Super Gel Hand Roller

Test report: Exposure machine

Cleaning: Standard roller => JS Super Gel



		Standard roller	JS Super Gel	Residual dust after standard roller
Exposure table	1	38	22	37%
	2	46	18	28%
	3	41	31	43%
	4	36	22	38%
	5	27	14	34%
	6	33	20	38%
	7	44	16	27%
Prepare table	8	12	13	52%
	9	19	14	42%
	10	22	9	29%
	11	15	7	32%
	12	13	11	46%
	13	14	8	36%
	14	15	6	29%
	Average			36,5%

Cleaning: JS Super Gel => Standard roller

		JS Super Gel	Standard roller	Residual dust after JS Super Gel
Exposure table	1	58	7	11%
	2	49	4	8%
	3	64	10	14%
	4	55	7	11%
	5	55	5	8%
	6	53	5	9%
	7	57	4	7%
Prepare table	8	31	2	6%
	9	31	7	18%
	10	29	2	6%
	11	35	9	20%
	12	33	3	8%
	13	31	1	3%
	14	34	2	6%
	Average			9,6%

Dust remove performance: JS Super Gel 90,4% Standard Roller 63,5%

Test report: Exposure machine

	JS Super Gel	Standard Roller
Image		
Type Number	JS20-150M	DRS-6FASP
Viscosity	Low	Low
Cleaning performance	90,4%	63,5%
Ink cleaning performance	All the residual ink is removed from the table	Not possible to remove ink

Maintenance Roller

Wash surface with running water once in a week.

Do not put the water inside. Pour to the middle to down.

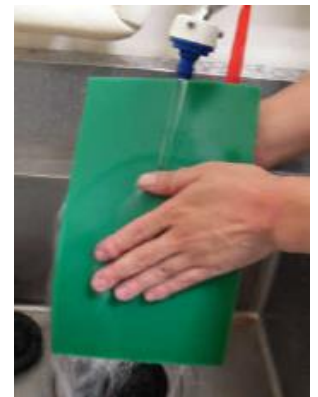
Do not scrub the surface with brush.

Use high purity ethanol. Methanol or similar chemical might damage on the surface.



Maintenance Mat

- Wash surface by running water.
 - After that, wipe the surface by ethanol. Acetone or other highly volatile chemical is also possible for short time cleaning. Mat expand just after cleaning, but it will be back to the normal condition after volatilization.
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- Before use, check the chemical is completely gone.
 - *4) Do not use Toluene or aromatic solvent.
 - *5) Do not scrub the surface with brush.
 - *6) When you find the unusual things on the surface such as fuzz or scratch, stop to use the mat, or carefully use it.



Q&A

✓ Is it possible to wash other than water?

=> Use rubbing alcohol to wash. Other chemical would damage on the surface.

✓ Will it get the scratch by the PCB edge?

=> Scratch is not a matter. JS Super Gel doesn't spread the scratch and no material drop.

Thank you for your attention!



Systems for Success

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