

KOKI No-Clean **Halogen Free** Tack Flux

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Halogen Free Tack Flux TF-M881R



Product Information (provisional)



Disclaimer:

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- Tack flux for soldering the BGA/ CSP component and repairing their solder joints
- In compliance with halogen free standard JEITA ET-7304A
- Classified as ROL0 by IPC J-STD-004B
- Ensures high electrical reliability



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Application	Dispense
Product Name	TF-M881R
Halide Content	0
Flux Designation*1	ROL0
Viscosity*2(Pa.s)	25±10
Copper Plate Corrosion*3	Pass
Tack Time	>72 hours
Shelf Life	16-30 °C: 6 months

1. Flux designation: IPC J-STD-004B

2. Viscosity: Cone type viscometer, 10rpm at 20 °C

3. Copper Plate Corrosion: IPC TM-650 2.6.15 C



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Continuous Dispensability

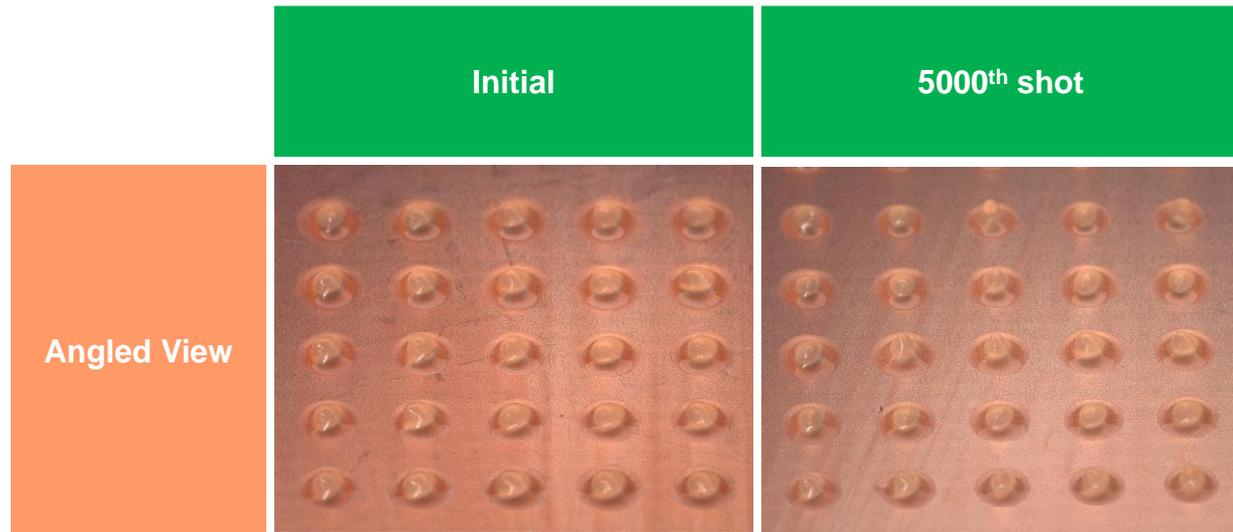
Dispenser: IMAGE MASTER-PC350 (Musashi Engineering)

Dispensing pressure: 0.20 MPa

Dispensing speed: 0.3 s/dot

Needle diameter: 0.61 mmφ

Ambient temperature: 25 °C



Dispensed dots are comparable throughout the test. TF-M881R possesses excellent continuous dispensability.



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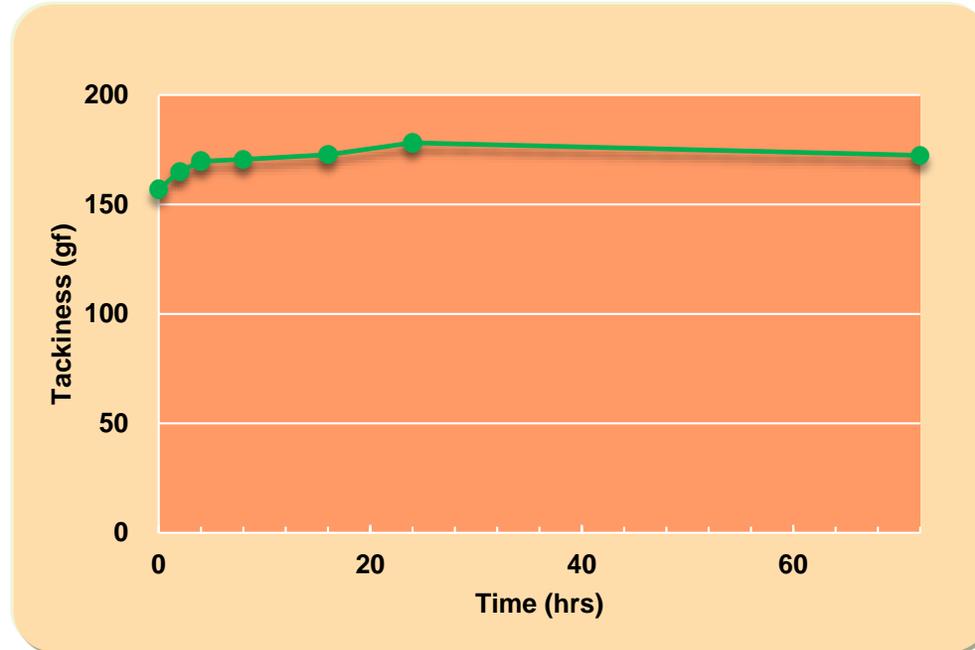
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Tack Time

Equipment: Tackiness tester TK-1 (Malcom)

Test standard: JIS Z 3284 4.5



Tackiness is stable over 72 hours.



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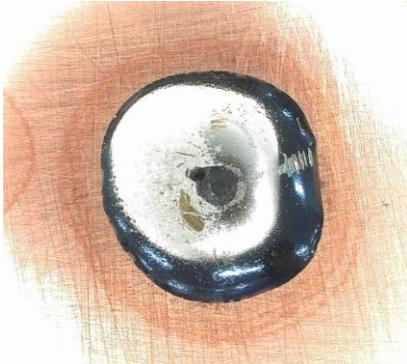
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Solder Spreading Test

Test standard: JIS Z 3197 8.3.1.1

Solder paste: Sn96.5, Ag3.0, Cu0.5

n	Spreading ratio (%)		Image
1	70.2	Average: 67.8	
2	68.7		
3	68.1		
4	63.4		
5	68.5		



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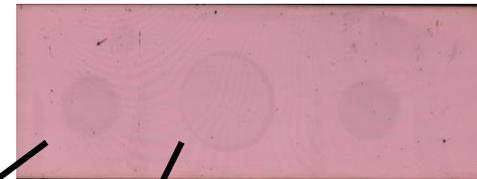
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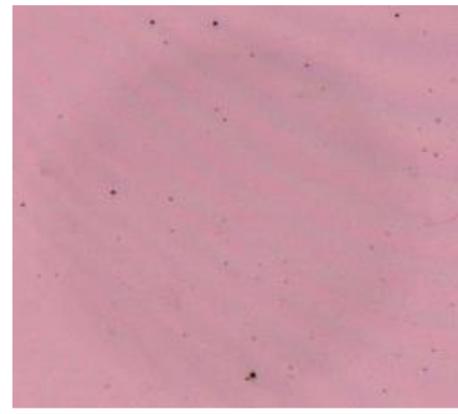
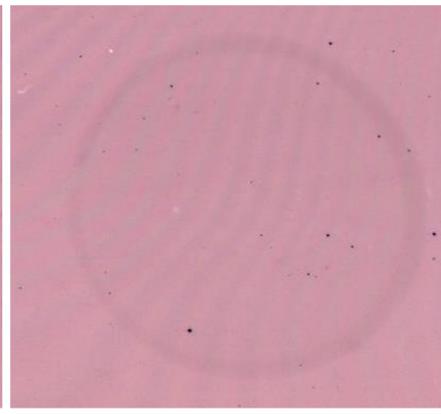
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Copper Mirror Corrosion

Copper mirror: 50 nmt,
 Transmission: $10 \pm 5\%$ (wavelength: 500 nm)
 Test ambient: $23 \pm 3^\circ\text{C} \times 50 \pm 5\%$
 Test duration: 24 hrs.
 Sample volume: 0.3 g
 Test standard: IPC-TM-650 2.3.32



Test piece

TF-M881R	WW class rosin 35%
	
Category : L	Category : L

No evidence of breakthrough was observed. It is classified as Category L.



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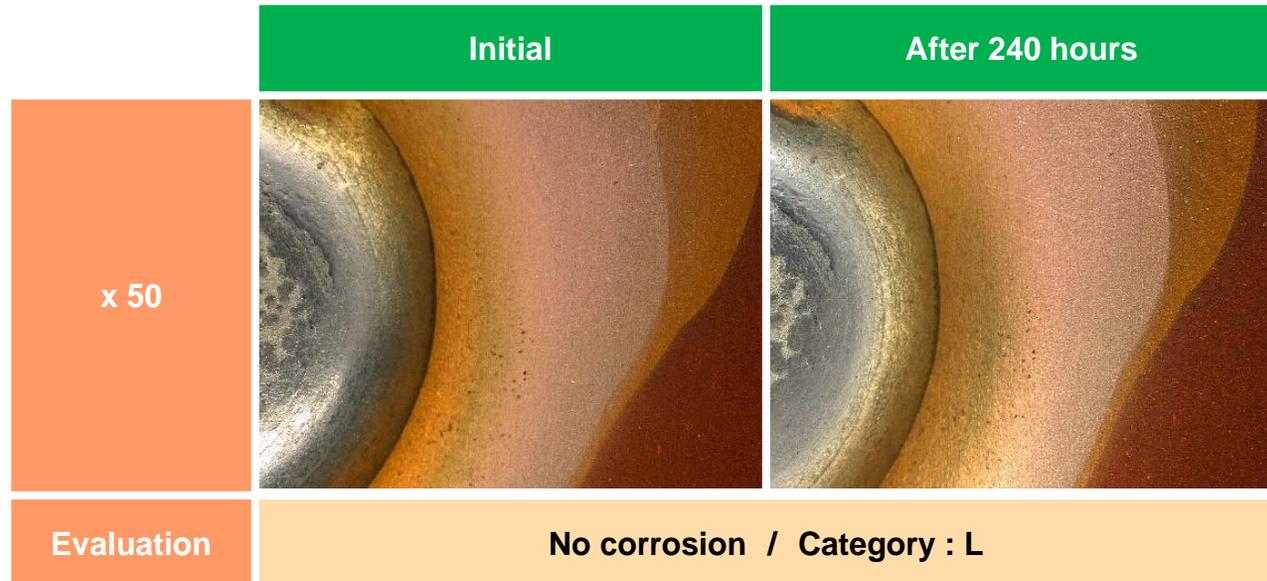
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Copper Plate Corrosion

Copper plate: 50 mm x 50 mm x 0.5 mm
 Test ambient: $40 \pm 3^{\circ}\text{C} \times 93 \pm 5 \%$
 Test duration: 240 hrs.
 Sample volume: 0.3 g
 Test standard: IPC-TM-650 2.6.15



No color change after 240 hours. It is determined as "No Corrosion" and classified as category L



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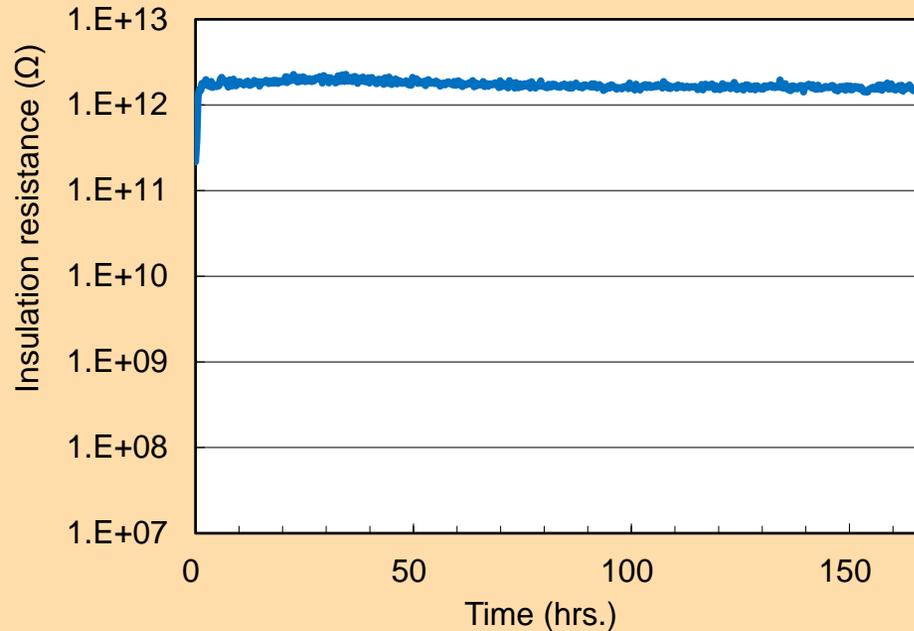
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Surface Insulation Resistance (SIR)

Test board:	IPC-B-24	Test ambient:	40±1°C x 90±3 %
Bias voltage:	12.5 V	Measurement voltage:	12.5 V
Test duration:	168 hrs.	Test standard:	IPC-TM-650 2.6.3.7



Test board after 168 hours

Insulation resistance did not drop throughout the test.



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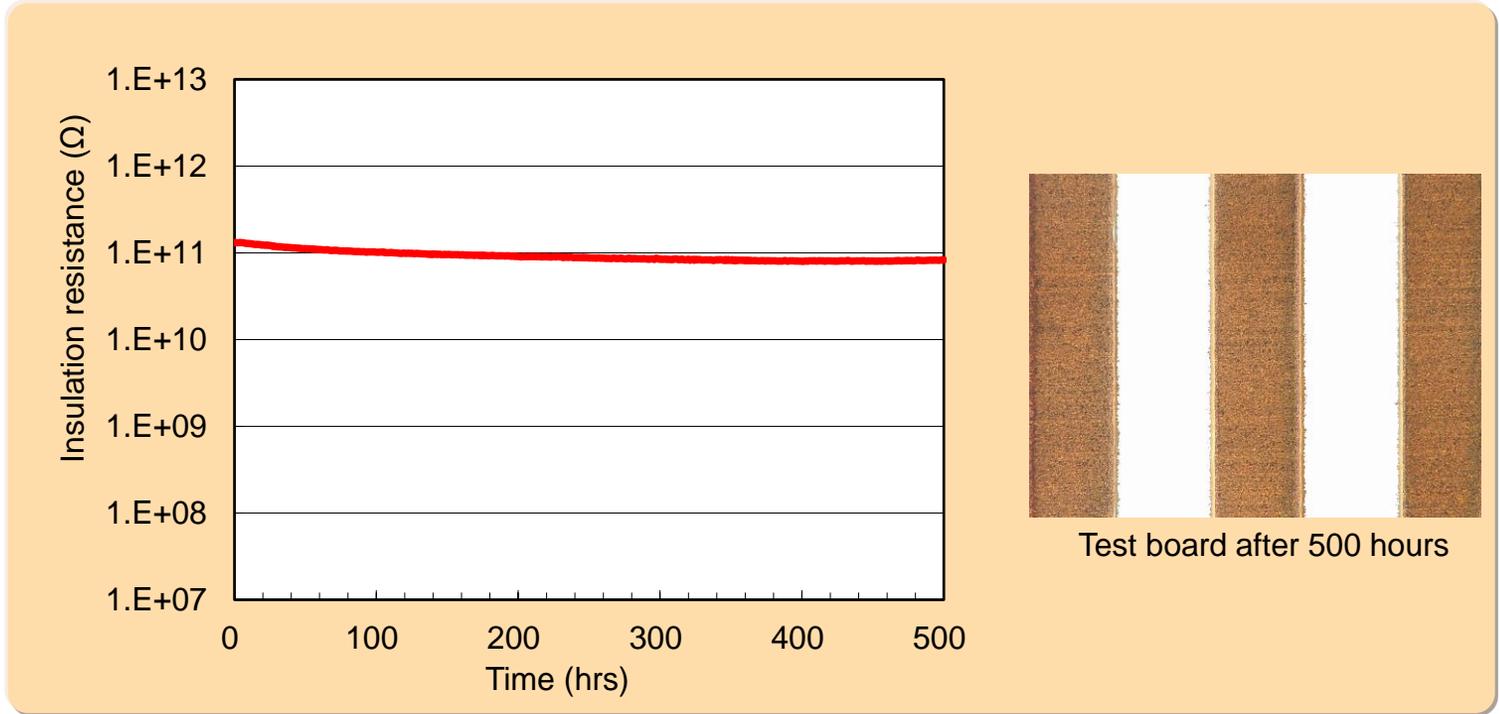
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Electro-Chemical Migration (ECM)

Test board:	IPC-B-25	Test ambient:	65±2 °C x 88.5±3.5 %
Bias voltage:	10 V	Measurement voltage:	100 V
Test duration:	500 hrs.	Test standard	IPC-TM-650 2.6.14.1



No evidence of migration was observed. Insulation resistance did not drop throughout the test.



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Equipment: Quartz-tube combustion ion chromatography

Test standard: JEITAET-7304A

Halide content (wt%)

Elements	Results
F	Not detected
Cl	Not detected
Br	Not detected
I	Not detected

No halide is added intentionally.



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1. Recommended Dispensing Condition

(1) Dispensing (Straight nozzle)

1. Needle inner diameter: 20 G and over (0.61 mm~)
2. Material: Metal
3. Dispense pressure: 0.2MPa

(2) Usage ambient

1. Temperature: 25~30 °C
2. Humidity: 40~60 %RH

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2. Product Life

16~30°C (Storage temperature): 6 months from the date of production.

3. Container

Available in syringe from different manufacturers in 5, 10 and 30 g

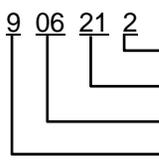
3. Caution: For consistent dispense volume, adjust the temperature (25°C) of the dispenser and make sure that the temperature of the product matches with the dispenser.

When using the Flux remaining in the syringe after the next day, remove the needle and store at room temperature with the cap on. It is recommended to use within 3 days after opening. If the storage temperature exceeds 30°C, or if the flux vibrates for the long time, the solvent may flow out to the top of the plunger.

If solvent bleed is confirmed, stable application may not be possible, so it is recommended not to use it.

* How to interpret the lot number

e.g. Lot No. 9 06 21 2



- number of the production batch: 2nd
- date of production: 21st
- month of production: June
- year of production: 2019



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Handling Guide – Recommended Reflow Profile (w/ Sn96.5, Ag3.0, Cu0.5)

