

# SODIFLUX

PRODUITS ET MATÉRIELS POUR L'ÉLECTRONIQUE



NIHON SUPERIOR CO., LTD.

**SN 100C** **WCB955**

Solder cream water soluble

**RoHS**

## Product Description

**Solder cream WCB955** is a leadfree solder paste for SN100C alloys. The special composition of **solder cream WCB955** shows excellent print and reflow characteristics under N<sup>2</sup> and air. Print speeds can be achieved up to 150 mm/s with excellent print characteristics down to 16-20 mils pitch. This is due to a unique rheology, which ensures that the higher shear rate viscosity is relatively low and the thixotropic index is high enough to ensure excellent definition and slump resistance, while maintaining good roll and drop off behaviour. **solder cream WCB955** offers an excellent open time, extended abandon time and good soldering activity. **solder cream WCB955** provides long tack life up to 48 hours and long stencil life up to 24 hours. The paste flux compositions allows reflow profiles with a peak temperature from 240 °C up to 250°C and allow a wide process window in the LFprocess. **Residues of solder cream WCB955** can be cleaned using warm water with reduced foaming characteristics.

## Performance Characteristics:

- Classified per J-STD004 as: ORHO
- Classified per EN 61190-1-1: ORHO
- Enhanced activity for tough to solder boards
- High speed stencil printing up to 150mm/sec
- Very cleanable post solder residues
- Long tack time up to 48 Hours.
- Excellent print results with 16 and 20 mils pitch.

**solder cream WCB955** contains to our knowledge no substances in concentrations which are prohibited by the European legislation 2002/95/EG (RoHS).

## Physical Properties:

(Data given for SNI Ot)C 88,8% metal, 325+500 mesh)

- Viscosity: ( typical): 206 Pas  
Malcom viscosimeter © 10 rpm and 25°C
- Initial Tackiness (typical): 1,8 g/mm~  
Tested to J-ST-D004, IPCTM650, Method 2.4.44
- Slump Test: pris  
Tested to JIS-Z3284 Appendix 7; Appendix 8
- Solder Ball Test: Pass  
Tested to JSTD004, IPCTM650, Method 2.4.35

- Wetting Test: Pass  
Tested to JSTD004, IPCTM650, Method 2.4.45
- Copper Mirror Corrosion: M  
Tested to JSTD004, IPCTM650, Method 2.3.32
- Silver Chromate Test: Pass  
Tested to JSTD004, IPCTM650, Method 2.3.33
- Chlorides and Bromides: None detected  
Tested to JSTD004, IPCTM650, Method 2.3.35
- Corrosion Test: Low  
Tested to JSTD004, IPCTM650, Method 2.6.15

- Fluoride by Spot Test: PaSS  
Tested to JSTD004, IPCTM650, Method 2.3.35.1

- SIR, IPC: Pass  
Tested to JSTD004, IPCTM650, Method 2.6.3.3

After cleaning	Blank	WCB955 SN100C
96 hours	1,6 x 10 <sup>1</sup>	6,0 x 10
168 hours	9,4 x 10	1,5 x 10 8

- Abandon time: Pitch 20 mil and greater: >2 hours  
Pitch 16mil and less (10 mil or less aperture):2 hours  
(8 mil or less aperture): 1 hours

## Standard Application:

89-88,5% Metal for Stencil Printing 86% Metal for Dispensing solder cream WCB955 is available in type 3 powder from 20-45 micron is normally recommended for fine pitch applications but type 4 powder from 20-38 micron is available as well.

## Recommended Reflow Profile:

solder cream WCB955 guarantees a wide window of allowed profiles. The user has more freedom to adjust profiles to the need of components and printed circuit boards. Full convection reflow systems are very common. The recommended reflow profile is made for SNI00C in a full convection oven.

## Cleaning:

solder cream WCB955 is a water soluble formulation, the residues must be removed. It is suggested that the residues are removed as soon after reflow as possible, although effective clearing can be effected up to 3 days after reflow allowing time for secondary processing. Clearing can be achieved using moderate temperatures 2570°C in most conventional aqueous cleaners. Clearing takes typically 25 minute

## Printing Parameters:

SqueegeeBlade: stainless steel  
Squeegee Speed: Capable to a max. printing speed of 100 mm/sec  
Stencil material: Stainless steel  
Temperature Humidity: Optimal conditions are 21- 25°C and 35-65% humidity.

## Packaging:

Jars: 500 g  
Syringe: 5cc, 10cc, 30cc

## Storage and shelf life:

solder cream WCB955 is recommended to store under proper conditions 5 10°C to maintain consistent reflow and print characteristics Solder cream WCB955 should be equalized at room temperature prior to printing (minimum Meurs). Do not use extensive heating. Shelf life is 6 months from date of manufacture when handled under proper conditions for jars and 4 months for syringes and cartridges in tip up position.

## Health & Safety:

Read the material safety data sheet and warning label before use.

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