



AMTECH

Advanced SMT Solder Products

INVENTEC
500 Main Street, Suite 18
PO Box 989
Deep River, CT 06417 USA

Toll Free: 800.435.0317
Phone: 860.526.8300
Fax: 860.526.8243
www.amtechsolder.com

NWS-4200-6, Water Washable Tacky Flux

Product Data Sheet

Product Highlights

- ORH1 flux classification
- Poly-dendrimer activator
- Long stencil life and wide process window
- Excellent wetting compatibility on most board finishes
- REACH compliant
- Print & Dispense grade solder paste available

Application

NWS-4200-6-TF is formulated for syringe, stencil printing, and rework applications on all PCB surface finishes. NWS-4200-6-TF may be used for BGA sphere attachment and reballing. NWS-4200-6-TF is also designed to work on all flip chip bumping and chip scale packaging sites.

Compatible Alloys

Alloy	Temp °C	Temp °F
63Sn/37Pb	183	361
62Sn/36Pb/2Ag	179	354
62.8Sn/36.8Pb/0.4Ag	179-183	354-361
42Sn/58Bi	138	280
42Sn/57Bi/1Ag	138	280
96.5Sn/3.0Ag/0.5Cu	217-220	423-428
99.0Sn/0.3Ag/0.7Cu	217-221	423-430
96.5Sn/3.5Ag	221	430
99.3Sn/0.7Cu	227	441
95Sn/5Sb	235-240	455-464
95Sn/5Ag	221-245	430-473

Test Results

Test J-STD-004 or other requirements (as stated)	Test Requirement	Result
Copper Mirror	IPC-TM-650: 2.3.32	H: >50% breakthrough
Corrosion	IPC-TM-650: 2.6.15	H: Major
Quantitative Halides	IPC-TM-650: 2.3.28.1	H: >2.0%
Electrochemical Migration	IPC-TM-650: 2.6.14.1	M: <1 decade drop (cleaned)
Surface Insulation Resistance 85 °C, 85% RH @ 168 Hours	IPC-TM-650: 2.6.3.7	M: ≥100 MΩ (cleaned)
Viscosity - Malcom @ 10 RPM/25 °C (x10 ³ mPa/s)	IPC-TM-650: 2.4.34.4	20-48
Visual	IPC-TM-650: 3.4.2.5	Clear and free from precipitation
Conflict Minerals Compliance	Electronic Industry Citizenship Coalition (EICC)	Compliant
REACH Compliance	Articles 33 and 67 of Regulation (EC) No 1907/2006	Contains no substance >0.1% w/w that is listed as a SVHC or restricted for use in solder materials

NWS-4200-6, Water Washable Tacky Flux

Cleaning

NWS-4200-6-TF can be cleaned using deionized water at 40-60°C with a recommended water pressure of 30-50 PSI.

Storage and Handling

Tacky flux should be stored at room temperature (20-25 °C). Syringes and cartridges should be stored vertically with the dispensing tip down. Properly stored tacky flux has a 12 month shelf life.

Packaging

10 & 30cc syringes
75 & 150 gram jars
170 & 340 gram cartridges

Recommended Profile

This profile is designed to serve as a starting point for process optimization using NWS-4200-TF. To achieve better results with voiding or to reduce tombstoning, consider using a longer soaking zone for 60-90 seconds, with a rapid pre-heat stage. If there is evidence of solder de-wetting, consider lowering the peak reflow temperature, or reduce the time above liquidus to <90 seconds.

