



SOLDERING

AMTECH™ NC-559-V3

NO CLEAN TACKY FLUX
LEADED / LEAD-FREE SOLDERING
EXCELLENT WETTING PROPERTIES

PRODUCT APPLICATION & HIGHLIGHTS

AMTECH NC-559-V3 is the 3th generation of the famous NC-559 tacky flux. Developed to achieve even better wetting and a more clear transparent residue. It is formulated for syringe application, stencil printing and rework processes on all PCB surface finishes. AMTECH NC-559-V3 performs excellent for BGA sphere attachment and reballing. It is also designed to work on all flip chip bumping and chip scale packaging sites.

- ROL0 flux classification
- Wide process window
- Excellent wetting compatibility on most board finishes
- Clear residue
- High temperature compatible

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
60Sn/40Pb	183-191	361-376
43Sn/43Pb/14Bi	144-163	291-325
42Sn/58Bi	138	280
10Sn/88Pb/2Ag	268-290	514-554

TEST RESULTS

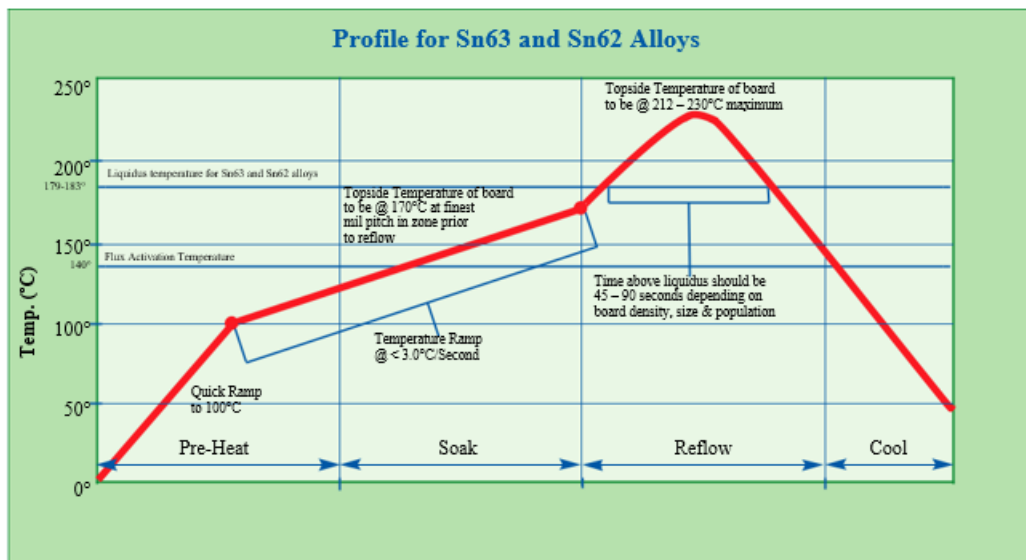
Test J-STD-004 or other requirements (as stated)	Test Requirement	Result
Copper Mirror	IPC-TM-650: 2.3.32	L: No breakthrough
Corrosion	IPC-TM-650: 2.6.15	L: No corrosion
Quantitative Halides	IPC-TM-650: 2.3.28.1	L: No halogen
Electrochemical Migration	IPC-TM-650: 2.6.14.1	L: <1 decade drop (no-clean)
Viscosity - Brookfield/20°C Mobile F HELIPATH system, at 5 rpm	IPC-TM-650: 2.4.34.4	Typical 400
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	May contain up to 7% w/w of ethoxylated 4-nonylphenol

PROCESS RECOMMENDATION

The best process will depend on factors such as operating conditions, equipment, board or component design. Our team is ready to advise you.

REFLOW GUIDELINE

This profile is designed to serve as a starting point for process optimization using NC-559-V3. To achieve better results with voiding or to reduce tombstoning, consider using a longer soaking zone, (140-180 °C) 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 <60 seconds.



CLEANING POST SOLDERING

AMTECH NC-559-V3 is a no-clean tacky flux, so cleaning is not required to meet IPC standards. The chemistry is specially designed so that any remaining flux residue is chemically inert and will not impact your assembled board or packaging under normal conditions. However, when cleaning is desired or required (e.g. high reliability assembly or to improved conformal coating adhesion), the flux residue can be easily removed with INVENTEC’s own formulated flux cleaners.

Inventec has more than 60 years experience in high-tech cleaning for aqueous and solvent based systems. Our solder materials are aligned with our cleaning solutions, providing you a guaranteed cleaning result with our materials.

PROCESS TYPE	PCBA DEFLUXING SOLUTIONS
Manual	Quicksolv™ DEF 90, Quicksolv™ DEF 70 (aerosol)
Aqueous system (Immersion or spray)	Promoclean™ DISPER 607, Promoclean™ DISPER 707, Promoclean™ DISPER 800
Co-solvent system	Topklean™ EL 20P or EL 20A + HFE bases solvents
Mono-solvent (Azeotropic)	Promosolv™ 70ES

Other products available, depending on specific customer requirements. Check also our maintenance cleaning solutions.

PACKAGING, STORAGE & SHELF LIFE

- Tacky flux should be stored at room temperature (20-25 °C).
- For an optimal preservation, store cartridges & syringes in a vertical position, tip downwards.
- Shelf-life is 18 months when properly stored

AVAILABLE PACKAGING



JAR
75g & 150g



CARTRIDGE
170g & 340g



SYRINGE
30g (10cc) / 100g (30cc)

HEALTH, SAFETY & ENVIRONMENT

No issues when used as recommended.

In accordance with the Annex II of Directive 2011/65/UE (RoHS), including its amendments, we certify that this product does not contain quantities above 0.1% of Hg, Pb, Cr VI, PBB, PBDE, DEHP, BBP, DBP, DIBP and above 0.01% of Cd. . INVENTEC PERFORMANCE CHEMICALS also fulfils its direct obligations under the REACH and Conflict Mineral regulations.

Please refer always to the Safety Data Sheet (SDS or MSDS) prior to use. Our SDS can be downloaded at www.quickfds.com. We will request to provide your email address, so we can automatically send you a new version of the SDS when a future update would occur.

TECHNICAL SUPPORT & FREE-OF-CHARGE TESTING

Inventec has a worldwide dedicated Technical Support team to help you along the different stages of our cooperation.

Depending on your request, we provide online or onsite support

- to select the right product based on your specific needs
- to assist you in your product qualification process
- to guide you with the initial set up of you process at all your worldwide manufacturing facilities
- to provide fast response on technical issues which could occur at any time during mass production.

When prior cleaning is required, customers are also welcome in our CLEANING CENTERS to see the process in action and to get convinced by our solutions. We cover water- and solvent based processes.

Inventec is unique in the world by developing not only soldering materials but also cleaning and coating solutions. These materials are very closely linked with each other from a process point of view. Talking to our Technical Team, who understands very well these 3 different product groups, will help you greatly to overcome technical challenges within your overall process.

Contact our technical support via contact@inventec.dehon.com or your local sales representative.

ABOUT INVENTEC & AMTECH

Inventec is a global provider of SOLDERING, CLEANING & COATING materials for Electronic, Semiconductor and Industrial applications. For over 40 years we have shown leadership in innovation by putting HEALTH IMPACT, SUSTAINABILITY and RELIABILITY at the core of our product development.

With ISO 9001 & 14001 production sites in France, Switzerland, USA, Mexico, Malaysia and China we can guarantee a smooth and cost-effective supply chain.

We supply to many industries but the excellent performance of our products in applications which demand high reliability, leads us to focus especially on the AUTOMOTIVE, AEROSPACE, SEMICONDUCTOR, ENERGY and MEDICAL industry.



Inventec has acquired AMTECH in 2014 from where it received the rights to manufacture and commercialize the AMTECH product range. Inventec will remain supplying AMTECH products to our worldwide customers but aligned according our Inventec branding policy. If you are in doubt that you are buying genuine AMTECH product, you can contact us to check if your supply source is an authorized distributor or re-seller.

www.inventec.dehon.com



SOLDERING • CLEANING • COATING

This data is based on information that the manufacturer believes to be reliable and offered in good faith. In no event will INVENTEC PERFORMANCE CHEMICALS be responsible for special, incidental and consequential damages. The user is responsible to the Administrative Authorities (regulations for the protection of the Environment) for the conformity of his installation.

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