

NitroFAS ***Nitrogen for Advanced Soldering—*** ***System for Wave Soldering*** ***with Nitrogen Atmosphere***

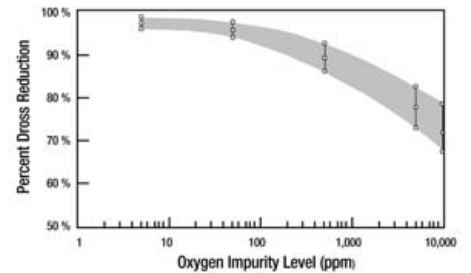
Air Products and its research and development center for electronics, together with circuit board assemblers, have been developing and optimizing soldering systems at inert atmospheres for more than 10 years.

This cooperative effort has resulted in the new and effective system NitroFAS, which enables you to reduce your manufacturing costs, eliminate post-assembly board cleaning, significantly increase solder joint quality and allow for transition to lead-free soldering technology with minimal effort.

New changes in soldering

The assembly and packaging industry faces three major issues, especially in circuit board assembly:

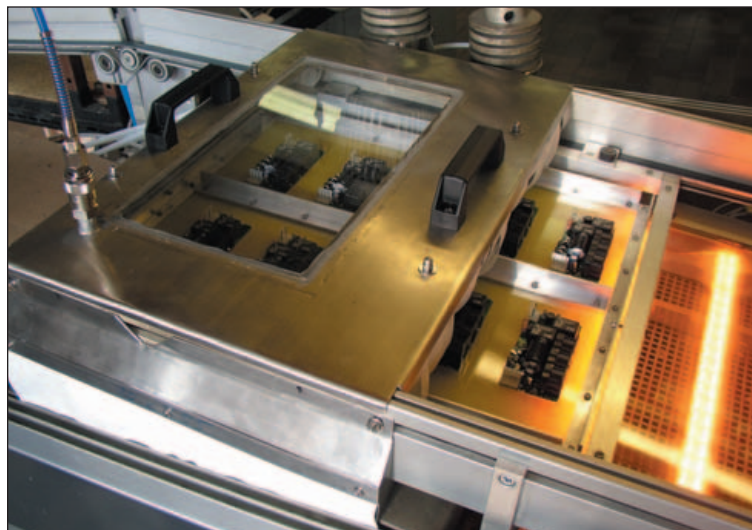
- higher quality and reliability
- new environmentally-friendly materials
- huge price erosion



Dross reduction is one of the most important advantages of inert atmosphere wave soldering.

How NitroFAS benefits you

This system utilizes all the advantages of inert wave soldering, together with the added benefit of minimal gas consumption.



Manufacturing costs reduction

- elimination of post-assembly board cleaning
- reduced dross formation (80% or more)
- reduced solder and flux consumption (10-30%)
- higher production uptime
- decreased maintenance time (80%)
- greatly reduced board defects and rework costs

Improved soldering quality

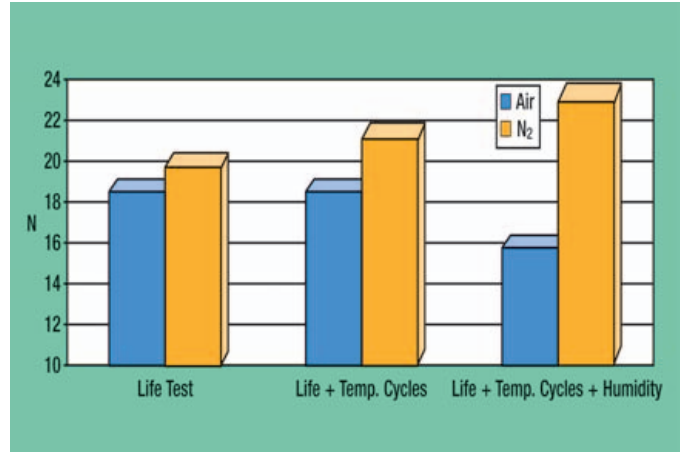
- fewer board defects
- more robust solder joints
- better wettability
- higher wetting force, lower wetting time (less time in high temperature wave)
- acceleration of debridging effect
- better contact coverage
- enlarged process window

Elimination of toxic materials

- elimination of chlorofluorocarbons (CFC's) cleaning
- enables to use fluxes with low (no) heavy metals content
- enables change to lead-free soldering
- lower operator's exposure to the toxic environment

NitroFAS can be effectively employed in new machines and also in current soldering equipment from any supplier. Therefore it creates the way you can successfully meet the new soldering requirements without the need of high investment into new soldering machinery.

Joint Quality and Reliability



Test Conditions

- Life Test—1000 hrs at 125 °C
- Shear test
- Temperature Cycling—100 cycles, -55 °C/+125 °C
- Shear test
- Humidity Test—120 °C, 85%RH, 64hrs
- Shear test

Shear test—joint strength

For More Information

This data sheet provides only a brief overview of NitroFAS. If you would like more information, please contact:

Air Products and Chemicals, Inc.
 7201 Hamilton Boulevard
 Allentown, PA 18195-1501
 Contact: Gregory K. Arslanian
 Phone: 610-481-8591
 Fax: 610-481-8647
 arslangk@apci.com

Free infoline: 800 100 700
(for CZ and SR)

Air Products spol. s r.o.
 Ústecká 30
 405 30 Děčín
 Czech Republic

Air Products spol. s r.o.
 Ke Kablo 289
 102 00 Praha 10
 Czech Republic

Air Products spol. s r.o.
 Hraničná 22
 836 61 Bratislava
 Slovak Republic

Contact for CZ & SR
 Stanislav Moravec
 +420 724271258

tell me more
www.airproducts.com/electronics
www.airproducts.cz