



OVEN SHIELD™



Reflow & Wave Maintenance Coating Part #3601

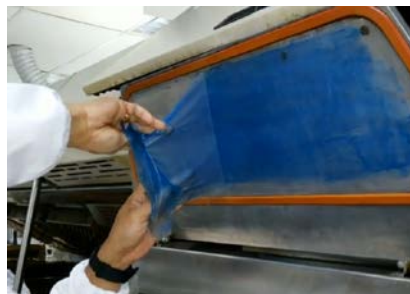
Introduction

XT-Armor™ Oven Shield™ Reflow Oven & Wave Maintenance Coating is a water-based, environmentally friendly coating that is designed to protect PCB assembly equipment from flux residues adherence. Flux sticks to the coating surface and then peels off – drastically reducing maintenance time.



XT-Armor Oven Shield is an effective mask coating to protect oven surfaces between scheduled maintenances. Regular use of coating reduces maintenance labor, equipment down-time and cleaning consumables like wipes and chemicals. All these benefits increase available production time and reduce maintenance cost.

XT-Armor Oven Shield, Reflow Oven & Wave Maintenance Coating has been tested and proven compatible with all of the most popular oven and wave equipment manufacturers: BTU, Heller, JTU, SMT, Speedline and Vitronics-Soltec.



Features / Benefits

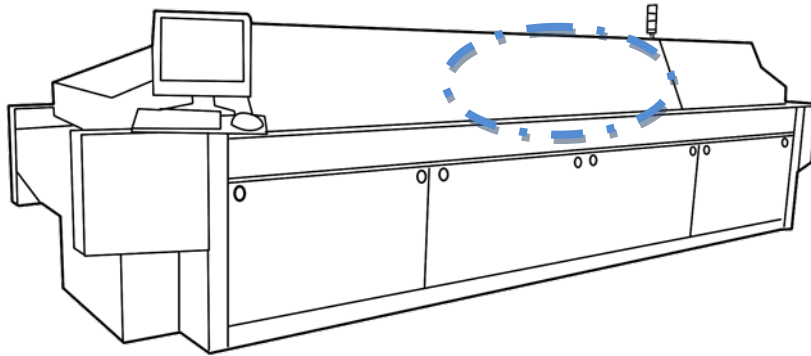
- Reduce maintenance labor as much as 50%
- Reduce equipment down-time by over 25%
- Protect capital equipment from scraping and abrasive cleaning equipment
- Prevent excessive flux accumulation from dripping onto PCB's
- Reduce cleaning consumables – cleaning chemicals and wipes
- Avoid exposure to harsh chemicals
- Coating peels off easily
- Coating cures during equipment heat-up cycle
- Low odor, non-hazardous, non-flammable
- Easy wash-up with water
- Environmentally friendly – zero VOC, zero GWP
- Halide-free — prevent ionic contamination

Applications

For use with reflow oven & wave equipment:

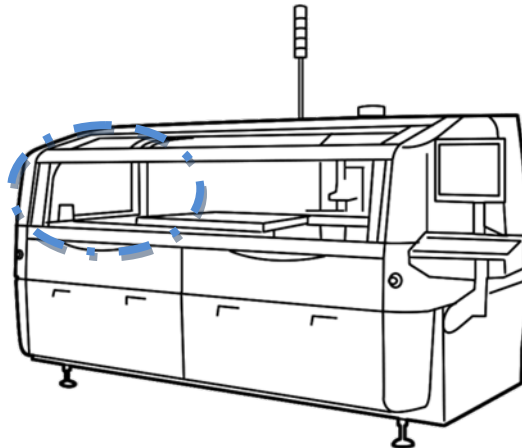
Application areas for vented and nitrogen-based reflow ovens:

- Cooling chamber inner walls and surrounding areas
- Flux management system chamber walls and flux collection plate
- Inlet and outlet fan isolator plates



Application for wave soldering systems:

- Spray fluxer unit surrounding areas
- Spray fluxer machine covers



Directions

Instructions for Reflow Oven Coating Application

Note: XT-Armor Oven Shield, Reflow Oven & Oven Maintenance Coating is *only* intended for use in areas of the oven that do not exceed 100°C. Do not apply to thermal exchange coils.

1. Clean surface (make sure that it's free of flux residues, etc.). We recommend Techspray RENEW™ Eco-Oven (P/N 1573)
2. Apply coating (*see photo below*)
 - a. Dispense coating onto area to be protected
 - b. Gently spread the coating, let the weight of the brush do the work
 - c. Be careful to avoid deep ridges in the coating, try to obtain a smooth and uniform coating
 - d. Desired thickness is approximately 2mm (0.08") wet coating
3. Allow coating to dry, coating will cure during oven heat-up, no waiting required. Cures within 5 hours at ambient temperatures
 - a. Coating color will change from light/opaque blue when wet to dark/translucent blue when dry

4. Operate oven as normal, no special changes or deviation from manufacturer's operating instructions
5. Coating life can be monitored by coating color changes. When coating becomes dark teal (more green), the coating should be replaced.
 - a. Coating life varies with process parameter and oven usage, typical coating may last approximately 4 weeks.
 - b. Recommended removal is when the coating is teal (*see photo below*)
6. Remove coating by peeling off from edges (*see photo below*)
 - a. For difficult-to-peel areas, spray on TECHSPRAY RENEW™ Eco-Shine (part #1505)
 - b. Soak for 2 minutes
 - c. Remove coating by peeling off from edges
 - d. Repeat as necessary



Coating application



Coating end-of-life color changes



Coating easily peels-off

7. Clean up wet coating from brushes and containers using warm water. Disposal of rinse water can generally go down drain, but dependent on local regulations.

Chemical Properties (*MSDS available on request*)

Properties based on diluted material, as recommended for use in in-line and batch (spray-in-air) system.

EXPOSURE LIMIT:	Manufacturer's recommendation 1000 ppm.
PHYSICAL STATE:	Liquid
ODOR:	Low odor
APPEARANCE:	Viscous blue liquid
pH:	8-9
BOILING POINT:	100°C (212°F)
FLASHPOINT AND METHOD (TAG Closed Cup):	None
SOLUBILITY IN WATER:	Fully soluble
DENSITY:	1.07g/ml @ 25°C (77°F)
VOC (by wt):	ZERO

Compatibility

XT-Armor Oven Shield is compatible with all of the most popular oven equipment manufacturers and with exposed materials normally found within respective equipment.

About TECHSPRAY RENEW™

TECHSPRAY RENEW™ is a brand that represents **High Performance Eco-Cleaning™**. Techspray® has applied our expertise in solvent cleaning to formulate some of the most effective eco-friendly Coatings on the market. Performance is our top priority, using the best "green" solutions as they become available. We all are at the cusp of the ongoing movement toward sustainable products, packaging, and processes. It is Techspray's intention to stay at the cutting-edge while keeping our products powerful and cost effective.

Environmental, Health and Safety

Techspray® is committed to developing products to ensure a safer and Coating environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

XT-Armor Oven Shield™ Coating is fully compliant with CARB (California Air Resource Board) requirements. Also is compliant with European REACH (Registration, Evaluation, and Authorization & Restriction of Chemicals) and WEEE (Waste Electrical and Electronic Equipment Directive) initiatives. It does not contain RoHS (Restriction of Hazardous Substances) restricted substances, SVHC (Substances of Very High Concern) list substances, or Halides.

XT-Armor Oven Shield™ Coating is halide-free, zero VOC (volatile organic compounds), zero GWP (global warming potential), non-Ozone depleting aqueous solution. *Refer to MSDS for additional information.*

Packaging, Availability and Storage

XT-Armor Oven Shield™ Coating available in the following sizes:

3601-16SQ	16oz (0.47L) 12 bottles/case
3601-G	1 gallon (3.785L)
3601-KIT	XT-Armor Application Kit (2) 3601-16SQ, (1) Brush and (1) Cup
3610-1	XT-Armor Application Cup 6 cups/case
3611-1	XT-Armor 2" Application Brush 12 brushes/case

SHELF LIFE:

XT-Armor Oven Shield™ is not perishable. Shelf life is undefined because it is dependent on storage conditions, not by the nature of the product itself. This product, in its original unopened container, XT-Armor Oven Shield™ Coating is expected to remain within original specifications up to 2 years if stored in a controlled environment, 41-86°F (5-30°C). If a shelf life needs to be defined for an inventory management process (e.g. ISO9001), a date can be set based on the manufacturing date referenced on the product label.

Resources

Techspray® products are supported by global sales, technical and customer services resources.

For additional technical information on this product or other Techspray® products in the United States, call the technical sales department at 800-858-4043, email tsales@techspray.com or visit our web site at: www.techspray.com and mobile site at: mobile.techspray.com

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in your country.

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