



Technical Process Bulletin

LOCTITE EA 9837.1 AERO

Composite Surfacing Film

(KNOWN AS SynSkin 9837.1)

INTRODUCTION

LOCTITE EA 9837.1 AERO is a 250°F/121°C or 350°F/177°C curing epoxy-based composite surfacing film designed to improve the surface quality of honeycomb stiffened composite parts. The product is manufactured with a non-woven fabric for support. It is offered in a nominal weight of 0.035 psf (170 g/sq m), and 0.030 psf (150 g/sq m).

FEATURE

- Good Tack
- Co-curable
- Provides High Quality Paintable Surface
- Minimizes Core Crush and Porosity
- Maximum Leveling Properties
- Resistant to Microcracking
- Compatible with Lightning Strike Screens and Foils

Uncured Properties / Suggested Acceptance Tests for certification

Color ¹	Opaque Gray
Available Weights	0.035 lb/ft ² (170 g/m ²) or 0.030 lb/ft ² (150 g/m ²)
Gel time @ 250°F/121°C, minutes ²	20 - 35
Gel time @ 350°F/177°C, minutes	0.5 - 2
Volatiles, % - max ³	1.5

¹Color - Visual examination and comparison to ISCC-NBS Centroid Color Charts.

²Gel time - Fisher John melting point apparatus.

³Volatiles - Volatile content by oven drying @ 350°F/177°C for 60 minutes.

Handling

This product is supplied in roll form and is ready to use as received. The film should be removed from cold storage and allowed to warm to room temperature prior to opening sealed bag. The indicator on the desiccant should be blue. The fabric side of the film should be positioned and co-cured on the prepreg side of the part. This will allow easy repositioning of prepreg if necessary.

Application

Storage Life - This product requires refrigerated storage. Store @ 0°F/-18°C or below for maximum storage life. Warranty life @ 0°F/-18°C is 12 months from date of shipment. Store only in sealed containers to prevent moisture contamination. Allow all moisture to evaporate before opening for use.



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Lay-up - Application of the surfacing film should be with the resin side facing the tool. Tools pre-treated with LOCTITE FREKOTE® Sealer B-15 and LOCTITE FREKOTE 700 NC Release Agent are recommended.

Open Assembly Time - This surfacing film may be used within the following schedule after removing from above recommended cold storage:
@ 77°F/25°C at least 21 days.

Curing - This surfacing film may be cured at either 250°F/121°C for 2 hours or 350°F/177°C for 1.5 hours with 45 psi/0.31MPa pressure (1°F to 10°F/0.5°C to 5°C per minute heat up rate).

Surface Preparation for Painting - Light sanding (180 grit) followed by solvent wipe to remove release chemicals and some imperfections.

Cleanup - It is important to remove excess adhesive from the work area and application equipment before it hardens. Denatured alcohol and many common industrial solvents are suitable for removing uncured adhesive. Consult your supplier's information pertaining to the safe and proper use of solvents.

Product Performance

Cross Hatch Paint Adhesion

Cross Hatch Paint Adhesion tested per BMS 8-341 using BMS 8-212 composite test panels surfaced with LOCTITE EA 9837.1 AERO

Condition

Initial - No Exposure

7 Days - Deionized Water @ 77°F/25°C

Static Conditioner: Henkel 28C1

Primer: BMS 10-103

Topcoat: BMS 10-60H, Type 2, Class B

Typical Results

>95% primer adhesion to SynSkin

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Handling Precautions

Do not handle or use until the Material Safety Data Sheet has been read and understood.
For industrial use only.

DISPOSAL INFORMATION

Dispose of spent remover and paint residue per local, state and regional regulations. Refer to HENKEL TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional disposal information.

PRECAUTIONARY INFORMATION

General:

As with most epoxy based systems, use this product with adequate ventilation. Do not get in eyes or on skin. Avoid breathing the vapors. Wash thoroughly with soap and water after handling.

Before using this product refer to container label and HENKEL TECHNOLOGIES MATERIAL SAFETY DATA SHEET for additional precautionary, handling and first aid information.

Note

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