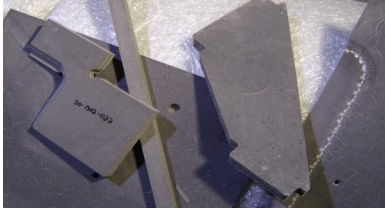




Processing Thermo-Lite Board®



All SpaceAge Synthetics' products are manufactured by skilled employees under a Quality Management System that is registered to ISO 9001:2008, ensuring every tough sheet meets the highest approved international standards.

Our material is a unique closed cell, lightweight composite product, manufactured with cross-linked polymer foam and fiberglass, that offers high specific strength and toughness. The non-absorbent material is extremely durable, provides an excellent bonding surface, has good impact strength, sound and thermal insulation, and is resistant to contamination. Offered in sheets or cut into parts, our material is built for lifetime performance, and is ideal for endless coring applications subjected to static and dynamic loads.

There are numerous suitable adhesives, sealants, paints, coatings and fairing compound products currently on the market that our customers have found to perform successfully with our coring material. We offer that information here; as well as hardware suggestions, techniques, and methods you may find helpful as you prep our Thermo-Lite Board® for your application.

ADHESIVES AND SEALANTS

Thermo-Lite Board® is non-absorbent, so water-based adhesives are not recommended. Best results are achieved with a polyurethane-based adhesive or sealant. We offer the listed contacts and their company products. Please consult them with your bonding questions. Qualification must be established on the user level.

SpaceAge Synthetics, Ltd. does not use, sell, distribute, or promote any brand of adhesive, sealant, paint, coating, fairing compound, or fastener hardware. This document is created for the purpose of listing those products that have proved to perform successfully in past customer applications. The user is solely responsible for evaluating and qualifying products applied to or used with our Thermo-Lite Board® to ensure they are fit for a particular purpose, and suitable for user's method of application.

- **3M United States**

Kevin Hooley
Adhesives Sealants Marketing Manager
651.733.8840 Cell
kphooley@mmm.com
www.3M.com

- **3M™ Contact Cements & Adhesives:**

Scotch-Weld™ 94CA - Green

- **3M™ Polyurethane Adhesives & Sealants:**

500-Series

- **3M™ Hybrid Adhesives & Sealants:**

700-Series - Green Product

- **3M™ Nitrile-Based Adhesive:**

Scotch-Weld™ 4491

Ask about 3M's environmentally-friendly products.

- **Sika Corporation**

Shawn McNulty Sr., Marine Business Unit
954.520.3578 Cell
mcnulty.shawn@sika-corp.com

Tony Gray
Midwest Region Sales Manager
Transportation & Components Business Unit
574.361.8424 Tel
gray.tony@sika-corp.com
www.sikaindustry.com

- **Sika Marine Polyurethane Adhesives:**

SikaFlex® 291, 291LOT, 292, 295UV

- **2-Component Products:**

SikaForce® and SikaFast®

- **Sika Transportation Polyurethane Adhesives:**

SikaFlex® 252, SikaFlex® 221,

- **Hybrid Adhesive:**

SikaFlex® 552

Please call for the appropriate Sika adhesive recommended for your application.

- **IPS Corporation**

Karen Brock Amoah
Sales & Marketing Mgr. Structural Adhesives
600 Ellis Road
Durham, NC 27703
301.502.3217 Cell
919.598.2400 Ext. 380 HQ Office
Karen.Amoah@ipscorp.com
www.ipscorp.com

- **Weld-On® Methacrylate Adhesives:**

SS300 Series
SS1100 Series

NEW Weld-On® adhesive testing performed with Thermo-Lite Board®.

- **Lord** 866.567.3234
www.lord.com

- **Lord** 7000 Series, Urethanes 300 Series Epoxy

- **Gorilla Glue** 800.966.3458
www.gorillaglu.com

- **Gorilla Glue**

- **Lonseal** 800.832.7111
www.lonseal.com

- **Lonseal** 880

- **Loctite Products** 800.321.0253
www.loctiteproducts.com

- **Loctite Urethane Adhesive:** U-05FL

- **Loctite Epoxy Adhesive:** 3032

- **Henkel Australia PTY** 300.88.555.6
www.teroson.com.au

- **Teroson Adhesive**

- **Forgeway, U.K. recommendation:** For bonding 'Thermo-Lite Board' where a 'flexible' bond is required, we recommend you prime the 'Thermo-Lite Board' using Formoa Premier PG and bond using Formoa 063 or Formoa 017FE. For bonding 'Thermo-Lite Board' where a 'rigid' bond is required, we recommend you prime the 'Thermo-Lite Board' using Formoa Premier PG and bond using Purok VX61

PAINTS AND COATINGS

When using paints and coatings with Thermo-Lite Board®, the best results are achieved with polyurethane-based products. We invite you to consult the listed contacts with your questions. Qualification must be established on the user level.

- For Paints, Please Contact:**
Sherwin Williams Company
 Mark Edmonds
 Great Lakes Regional Marine Specialist
 715.551.3899 Tel
 swrep5835@sherwin.com

POLANE® SprayFil
 D61A23
POLANE® S Plus
 Polyurethane Enamel



- Quantum Group**
 Tony LaGrange, President
 780.458.3355 #224 Tel

For a Fire Proof Intumescent Coating Service,
 Please Contact Us for Options

- For Sound Damping Options, Please Contact:**
American Acoustics
 Ken Rodger
 720.635.1294 Tel

FAIRING COMPOUNDS

Lightweight and sand-able fairing compounds (epoxy putties, surface fillers) may be used to create a further refined and smoother surface on our products in prepping them for other paints, coatings, and surface finishes. Please contact the provided sources for those fairing compounds that have proved to perform well with our product.

- Akzo Nobel** 31.20.502.7555
 www.akzonobel.com

**AWLGrip Fairing Compound
 & Coatings**

- 3M Bondo Corporation** 800.3M.Helps
 www.bondo.com

Bondo Marine

FASTENER HARDWARE

Thermo-Lite Board® will accept standard tooling and hardware. We suggest through-bolting and up-sizing the washer/head diameter if possible. In comparison to plywood, user must reduce the torque when fastening into the material. The fastener performance varies with fastener style, size, and torque as well as with product series and density. Hardware qualification must be established on the user level.

Reputable Bus OEM's and Transit Authorities world-wide use Thermo-Lite Board® in the flooring of their public transit buses. Here, they share fastener and installation methods:

FASTENER/ADHESIVE

METHOD

1. Floor screws with up-sized washers

Install at low RPM, and do not over tighten; this may create too large a hole, or draw the head through the material.

2. Countersink

Fill head of screws, and sand to create a smooth surface.

3. Screw system
 (Self-tapping seam screw (M6 #14) with 1" washer/ 1" flat head screw with slot on end of thread shank)

Allows mechanic to tighten the bolt to the screw from underneath the bus.

4. Fasten with adhesive (for additional securement) or without adhesive

Clean surface (Sika®Cleaner-205.) Apply adhesive (SikaFlex® 221, SikaFlex® 555) or construction adhesive, to sub-frame before composite is set in place.

5. Huck bolts, Grade 5 Floor Bolts, 5/16" Grade 8 Torx Bolts



UNDERBODY COATING

- Protects the steel parts and chassis framework from corrosion. ◀
- Provides additional protection for the flooring material. (Tectyl 121BN) ◀
- Underbody wax system seals off water trap areas. ◀
- Little to some acoustical advantages. ◀
- Reduces some heat transfer. ◀