



DUNA-USA
FOAMS & CHEMICALS

MATERIALS FOR SIGNMAKING AND THEMING

**Rigid polyurethane foam for interior
and exterior signs, displays, props,
and design elements.**



I N N O V A T I O N P R O V I D E R S
INNOVATION PROVIDERS

CORAFOAM® HDU Polyurethane Foams

CORAFOAM® is a rigid polyurethane foam designed for signs, props, prototypes, master models, dimensional letters, and thermoform plugs. DUNA-USA's unique "continuous" manufacturing technique results in an extremely tight cell structure that is easy to finish, carve or machine.

Typical sign applications for CORAFOAM® include:

- | | | |
|--|---|--|
| <ul style="list-style-type: none">• Monument Signs• Channel Letters• CNC Routed Signs | <ul style="list-style-type: none">• Hanging Signs• Sandblasted Signs• Fascia Signs | <ul style="list-style-type: none">• Dimensional Letters• Architectural Elements |
|--|---|--|

CORAFOAM® Features and Benefits:

- Will produce chips instead of dust when cut on CNC.
- Grain free consistency.
- Ultra smooth surface makes for easier finishing.
- Can be fabricated with anything that can cut wood.
- Closed-cell, will not absorb water.
- Can be easily made to look like wood. Lifetime warranty outdoors.
- Strongest HDU on the market per density

Cover photo credit: House of Signs in Frisco, CO

Photo credit: House of Signs



Sizes and Densities:

| Product | Density (lb/ft ³) | Sheet Size | Thickness |
|----------------|-------------------------------|------------|-----------|
| CORAFOAM® U40 | 4 | 48" x 96" | Up to 24" |
| CORAFOAM® U60 | 6 | 48" x 96" | Up to 24" |
| CORAFOAM® U80 | 8 | 48" x 96" | Up to 18" |
| CORAFOAM® U100 | 10 | 48" x 96" | Up to 16" |
| CORAFOAM® U150 | 15 | 48" x 96" | Up to 12" |
| | | 48" x 120" | Up to 12" |
| | | 48" x 144" | Up to 12" |
| | | 60" x 96" | Up to 9" |
| | | 60" x 120" | Up to 9" |
| | | 60" x 144" | Up to 9" |
| CORAFOAM® U200 | 20 | 48" x 96" | Up to 8" |
| CORAFOAM® U280 | 28 | 48" x 96" | Up to 8" |
| CORAFOAM® U310 | 31 | 48" x 96" | Up to 6" |

*Custom sheet sizes available upon request.

Photos courtesy of House of Signs in Frisco, CO



Choosing a Density

When discussing the density of CORAFOAM®, it is referring to its weight by pounds-per-cubic foot. For example, a 12" x 12" x 12" cube of 15lb CORAFOAM® will weigh exactly 15lbs.

For signmaking, 15lb and 20lb CORAFOAM® are the most popular densities, with 15lb being the most frequently used product. In most cases, for interior or exterior signage, 15lb CORAFOAM® is the recommended product. 20lb CORAFOAM® will have a smoother surface, be more durable, and will hold edge-detail better. It's a great alternative for projects where strength or weather is a major concern, or as a potential option to reduce priming/finishing time.

Fabricating

CNC Routing: CORAFOAM®'s grain-free, non-abrasive consistency makes it extremely easy to cut with a CNC router. Both high-speed steel and carbide cutting bits can be used. For speeds and feeds recommendations, please see the DUNA-USA YouTube channel.

Sandblasting: Sandblasting CORAFOAM® can be done easily and effectively. Due to its high mechanical strength, it is popular to achieve a high level of detail with 15lb CORAFOAM®.

Standard Woodworking Tools: Anything that can cut wood can cut CORAFOAM®, that includes bandsaws, jigsaws, routers, and standard hand tools.

Waterjet cutting: CORAFOAM® can be very effectively cut with a waterjet cutter.

Photo credit: Signs by Van



Photo credit: Signs by Van



Photo credit: Oak Branch Manufacturing

Bonding

Almost any type of adhesive can be used to bond CORAFOAM®. Because it is a polyurethane foam, polyurethane adhesives such as DUNABOND work extremely well, but it is also possible to use epoxies and other types of adhesive. DUNA-USA always recommends conducting a small test first to prove compatibility.

DUNA-USA manufactures the following adhesives:

- **DUNABOND 3206:** Waterproof, single-part expanding polyurethane adhesive designed for use on CORAFOAM® but can also be used on wood, metal, concrete, PVC, and almost any type of material. Working time of 15-18 minutes.
- **DUNABOND 3140:** Waterproof, single-part expanding polyurethane adhesives designed for use on CORAFOAM® but can also be used on wood, metal, concrete, PVC, and almost any type of material. Working time of 35-40 minutes.

Priming and Painting

CORAFOAM® comes from the factory ready to prime and paint. Faces are pre-sanded to minimize post-production labor. Any time the board is cut, routed, or sandblasted, it is recommended to sand and re-prepare the board in preparation for finishing.

Priming:

Due to its ultra-smooth surface, CORAFOAM® is compatible with almost any type of primer. Generally, it is easiest to use a high-build (primer with high solid content) with CORAFOAM®, but it is not mandatory. Any high-quality exterior grade primer will work with CORAFOAM®.

We have done extensive testing with Matthews Paint Company and Akzo Nobel, and both companies have recommended systems for CORAFOAM®.

NOTE: It is important to ensure that your choice of primer is compatible with the paint. Additionally, when using water-based primers, you must ensure the primer is 100% dry before proceeding to the paint stage. If there is any moisture left in the primer, and paint is applied, there is a high chance the water will try to “escape” through the surface of the paint. Please be careful! Water-based primer is notorious for appearing dry when it isn't.

Painting:

CORAFOAM® is compatible with almost any type of paint or coating. Many of our customers have given us feedback showing favorable results with Akzo-Nobel, Matthews Paint Company, Sherwin-Williams, and Behr Ultra-Premium paints. CORAFOAM® is also compatible with spray-metal coatings such as Plate-All.

DUNA-USA always recommends conducting a small test prior to beginning your project.

Photo credit: Signs by Van



CORAFOAM® HDU Vs. Wood

HDU offers several improvements over traditional wood substrates, particularly for exterior signage. In addition to being less expensive than wood outright, it also offers significant labor savings in its availability of large sheet sizes and thicknesses that are ready for fabrication immediately, instead of requiring joining and planning prior to starting work.

For outdoor use, CORAFOAM®, being a closed-cell product, cannot absorb water and will not rot, crack or warp. Because of this, CORAFOAM® signs have a lifetime warranty outdoors.

Installing

Adding fasteners to CORAFOAM®:

The most “bulletproof” method of attaching fasteners to CORAFOAM® is to drill a hole that is slightly wider and deeper than the fastener, fill it with epoxy or polyurethane resin, set the fastener in and let it cure.

Reinforcing/Backing:

Due to its grain-free structure, in many situations it is recommended to reinforce CORAFOAM® by using a backer or adding reinforcement in strategic areas, or by building a frame.

When installing a sign that will be getting a lot of sun (facing south), with an additional consideration being if it is also painted a dark color, it is recommended to use at least 1.5” or 2” thick CORAFOAM®, and to consider backing/reinforcing it, and/or applying fasteners every 12-14”.

General Installation Note:

The many variables and circumstances surrounding each individual sign installation mean that a one-size fits all answer is not always possible to provide. When in doubt, DUNA-USA recommends contacting a sign engineering firm.



CORAFOAM® HDU Sign Warranty

DUNA-USA proudly stands behind our products. When painted and protected correctly, we warrant that our CORAFOAM® material will not peel, warp, rust, rot or deteriorate, for as long as your sign is in use.

This warranty excludes any issues arising from faulty engineering, design, installation, workmanship, and damages from other materials laminated to or used in conjunction with our products. This warranty also excludes acts of God, animals or vandalism.

Purchaser's exclusive remedy is replacement, by DUNA-USA, of any CORAFOAM® product that fails to conform to its specifications. Please note that this limited warranty does not apply to any CORAFOAM® product which has been handled, stored, or installed in a manner inconsistent with DUNA-USA, Inc's, recommendations or industry custom. Further, DUNA-USA's limited warranty does not provide any other warranties, express or implied, and expressly disclaims any implied warranties of merchantability or fitness for a particular purpose. Finally, DUNA-USA's limited warranty disclaims all responsibility for any loss, damage, or expense, whether direct, indirect, special, incidental, or consequential, which may arise out of the use, or the loss of use, of any CORAFOAM® product.

**FOR ALL
QUESTIONS
OR INQUIRIES
REGARDING
THIS WARRANTY,
PLEASE CALL
(281) 383 3862**

Photo credit: Signs by Van



Photo credit: Oak Branch Manufacturing



Photo credit: House of Signs



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