DUNA-Corradini
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-Corradini'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:

- **Monument Signs**
- **Channel Letters**
- **CNC Routed Signs**
- **Hanging Signs**
- **Sandblasted Signs**
- **Fascia Signs**
- **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 polyurethane foam on the market per density.

Cover photo credit: House of Signs in Frisco, CO

Photo credit: House of Signs

Sizes and Densities:

Product	Density (kg/m³)	Standard Sheet size (mm)	Thickness (mm)
CORAFOAM® MD 80	80	1200x2500	Max. 400
CORAFOAM® MD 100	100	1200x2500	Max. 400
CORAFOAM® MD 140	140	1000x2000	Max. 400
CORAFOAM® MD 160	160	1000x2000	Max. 400
CORAFOAM® MD 250	250	1000x2000	Max. 200
CORAFOAM® MD 300	300	1000x2000	Max. 200
CORAFOAM® MD 320	320	1000x2000	Max. 100
CORAFOAM® MD 500	500	1000x2000	Max. 100

**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 kilograms per cubic metre. For example, a 1 x 1 x 1 mt cube of density 250 CORAFOAM® will weight exactly 250 kgs.
For signmaking, CORAFOAM® MD 250 and 320 are the most popular densities, with 250 being the most frequently used product. In most cases, for interior or exterior signage, CORAFOAM® MD 250 is the recommended product. CORAFOAM® MD 320 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.

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 CORAFOAM® MD 250.

Standard Woodworking Tools: anything 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

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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 DUNAPOL™ AD work extremely well, but it is also possible to use epoxies (DUNAPOX™ AD) and other types of adhesive.

DUNA-Corradini manufactures a wide range of adhesives; among them we highlight:

- **DUNAPOL™ AD 3206 V3**: 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.

- **DUNAPOL™ AD 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-prep the board in preparation for finishing.

Priming:

Due to its ultra-smooth surface, CORAFOAM® is compatible with almost any type of primer. 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 paintand that it is completely dry before proceeding with the painting. Residual traces of solvent or water in the primer layer can subsequently cause defects on the paint layer (blistering). It is advisable to strictly follow the instructions of the producer of the primer with regard to drying times.

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

Photo credit: Signs by Van

CORAFOAM® Polyurethane foam Vs Wood

Polyurethane foam 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 wrap. 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 40 or 50 mm thick CORAFOAM®, and to consider backing/reinforcing it, and/or applying fasteners every 300-350 mm.

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-Corradini recommends contacting a sign engineering firm.

CORAFOAM® Polyurethane Foam Sign Warranty

When painted and protected correctly, CORAFOAM® is an extremely durable material, not subject to decomposition or deterioration over time.

DUNA-Corradini applies the Quality Management System according to ISO 9001: 2015, but is not liable for any non-conformity related to incorrect storage, handling, installation and processing of its products. It is ultimately responsibility of the Customer to verify the suitability of the products for the purposes of their specific application.

DUNA-Corradini assumes no responsibility for any defects or damage resulting from the design, construction and installation of the sign or other works made using CORAFOAM® materials, as well as any defects and / or damage resulting from other materials coupled or combined with CORAFOAM®.

Photo credit: Signs by Van

Photo credit: Oak Branch Manufacturing

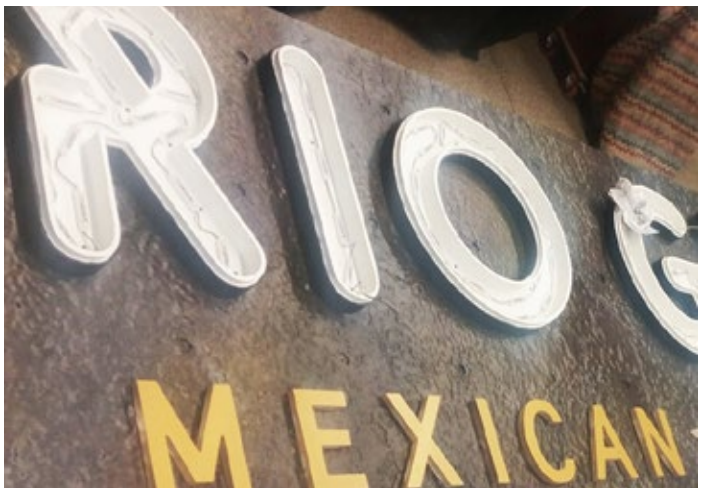

Photo credit: House of Signs

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