

Section I - Building Components

6. FRP, Accessories and Insulation

2" Insulation on the walls and 3" on the ceiling.
1/2" Class A FRP on walls and ceiling

This product is to be fastened to the wall



The Innovators of Quality Framing and Lath Systems

Z-Furring Channel Specification - 20 ga



MAXIMUM BLANK SIZE	MINIMUM LEG SIZE	MAXIMUM LENGTH	STEEL THICKNESS (ga)
22"	7/8"	21'	12,14,16,18,20 & 25

CEMCO Z - Furring Channel is fabricated from hot-dipped galvanized steel complying with ASTM A653 with a minimum G40 coating meeting ASTM A924. The furring channel is fabricated from minimum 25 gauge (0.0179-inch-thick) steel (uncoated). The channel is manufactured in various web depths and leg lengths (attachable flange).

CALIFORNIA EXPANDED METAL LATH PRODUCTS CO.

Corporate Office
263 N. Covina Lane,
City of Industry, CA 91744
Phone (800) 775-2362
Fax (626) 330-7598

1001-A Pittsburg Antioch Hwy,
Pittsburg, CA 94565
Phone (925) 473-9340
Fax (925) 473-9341

490 Osage Street,
Denver, CO 80204
Phone (303) 572-3626
Fax (303) 572-3627

www.cemcosteel.com



Thermasheath[®]-3

WALL

Insulation for the Building Envelope

Doing one thing well in so many ways...

Rmax is a U.S. owned company that only manufactures polyiso insulation. Thermasheath-3 is manufactured in the U.S. and is offered through an extensive distribution network. It is available in standard four foot wide panels, with standard panel lengths of eight or nine feet. Custom lengths are available for special orders. Contact Rmax Sales at your regional Customer Service Center for product availability, pricing information, and your nearest distribution center.

Corporate & Technical
Rmax Operating, LLC
13524 Welch Road
Dallas, Texas 75244-5291
Phone: (972) 387-4500
Fax: (972) 387-4673
Email: rmax@rmax.com
Web: www.rmax.com

Customer Service & Plant Locations
Central Region
Dallas, Texas
(800) 527-0890 Ext. 102
Eastern Region
Greer, South Carolina
(800) 845-4455 Ext. 156
Western Region
Fernley, Nevada
(800) 762-9462 Ext. 156



2011-12

PRODUCT DESCRIPTION

Rmax Thermasheath-3 is an energy-efficient thermal insulation board composed of a closed-cell polyisocyanurate (polyiso) foam core bonded to reinforced aluminum foil facers on each side. Thermasheath-3 utilizes a CFC-, HCFC- and HFC-free blowing agent that has zero Ozone Depletion Potential (ODP) and negligible Global Warming Potential (GWP). This insulation is suitable for use in walls, ceilings and some limited roofing applications in new construction for commercial, residential, agricultural and industrial buildings and in thermal retrofit construction within existing buildings.



COMPLIANCES

- ASTM C1289 Type I, Class 1
- International Building Code (IBC) Section 2603, Foam Plastic
- ASHRAE 90.1
- ESR-1864, ICC Evaluation Service
- Miami-Dade County Product Control Approved
- RR 25322, City of Los Angeles Research Report
- California Code of Regulations, Title 24
- Air Barrier Material per ASTM E2178

CONSTRUCTION APPLICATIONS

- Stud walls; cavity walls; masonry walls; exterior stucco; re-siding; vaulted ceilings; attics and crawl spaces; limited roofing applications

INCENTIVE OPPORTUNITIES

- Reduces energy costs
- Contributes toward LEED[®] credits
- Offers tax credits, where applicable

THERMAL PROPERTIES / PRODUCT DATA

"R" means resistance to heat flow. The higher the R-value, the greater the insulating power.

Nominal Thickness	Thermal R-Value ¹	R/Inch	System R-Value ²
Inches	*F·ft ² ·hr/Btu	*F·ft ² ·hr/Btu·in	*F·ft ² ·hr/Btu
1.00	6.0	6.00	8.77
1.50	9.6	6.40	12.37
2.00	13.1	6.55	15.87
2.50	16.7	6.68	19.47
3.00	20.3	6.77	23.07
3.50	23.9	6.83	26.67
4.00	27.4	6.85	30.17
4.50	31.0	6.89	33.77

¹Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.

²Includes the ASHRAE assigned 2.77 R-value of a 1/2" dead-air space against a reflective foil in a typical wall assembly.

Additional thermal R-values can be found on the insert to this document. Thermasheath-3 is shipped in bundles that are approximately 48 inches high and wrapped in plastic for easy handling. Visit www.rmax.com/resources.asp for a complete list of thicknesses and packaging information.

TYPICAL PHYSICAL PROPERTIES

Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.

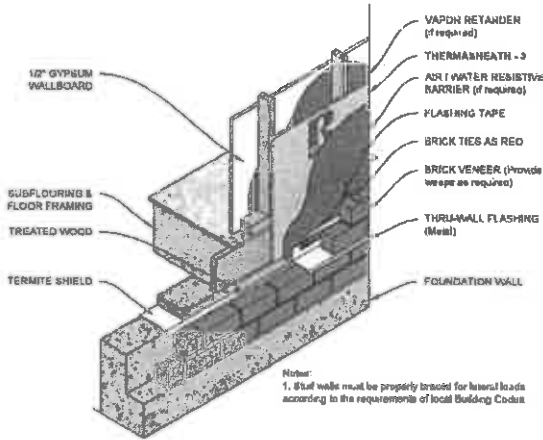
Property	Test Method	Results
Density, Overall, Nominal	ASTM D1622	2.0 pcf
Compressive Strength	ASTM D1621	20 psi ¹
Flame Spread, Core ²	ASTM E84	75 or Less
Smoke Developed, Core ²	ASTM E84	< 450
Water Vapor Transmission	ASTM E96	< 0.3 perm
Water Absorption	ASTM C209	< 1% Vol.
Dimensional Stability	ASTM D2126, 7 days, 158°F, 98% rh	< 2% Linear Change
Service Temperatures		-40°F to +250°F

¹Also available in 25 psi upon request.

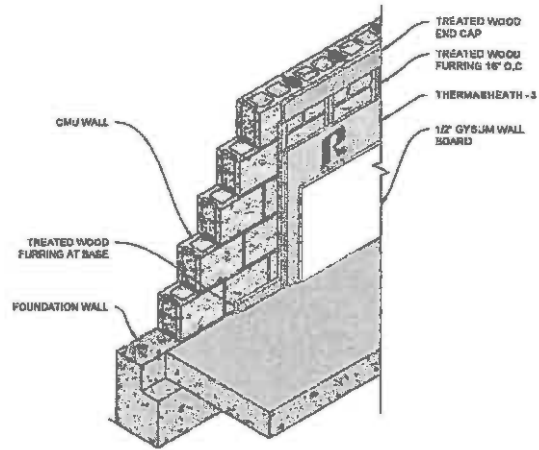
²Flame spread and smoke numbers are shown for comparison purposes only and are not intended to represent the performance of Thermasheath-3 and related components under actual fire conditions.

APPLICATION / INSTALLATION

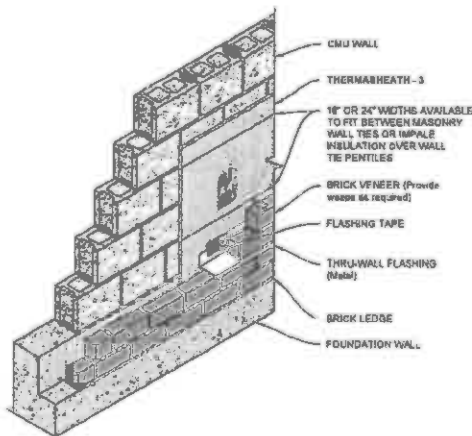
Stud Wall Construction - Thermasheath-3 applied to the exterior or interior face of studs, to cover all studs, sills, plates and header constructions, provides a layer of continuous insulation (ci) over details not normally covered by insulation products. It may be secured to the framing or structural sheathing with bugle-head screws, galvanized roofing nails or common nails driven through cap washers. Quality-grade construction adhesives may also be used to secure the Thermasheath-3 on interior applications. Exterior facades may include brick/stone veneer, exterior siding and stucco. Thermasheath-3 must be covered on the interior with a minimum 1/2" gypsum wallboard interior finish that is mechanically attached.



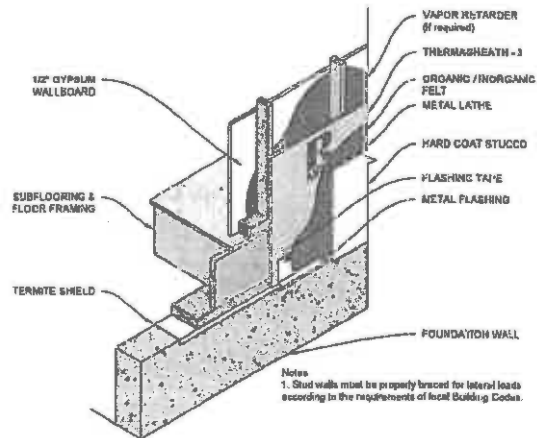
Masonry Wall Construction - Thermasheath-3 is applied to either the exterior or interior face of concrete or concrete masonry walls to provide a layer of continuous insulation (ci) over the entire surface. It may be secured to the inside face of a concrete or concrete masonry wall, over or under the furring strips, and covered with a minimum 1/2" gypsum wallboard interior finish. Adhesives, screws or nails may be used to hold the Thermasheath-3 in place against the wall temporarily, until the furring strips and gypsum wallboard are installed. The furring strips and gypsum wallboard must be secured with suitable screws or nails.



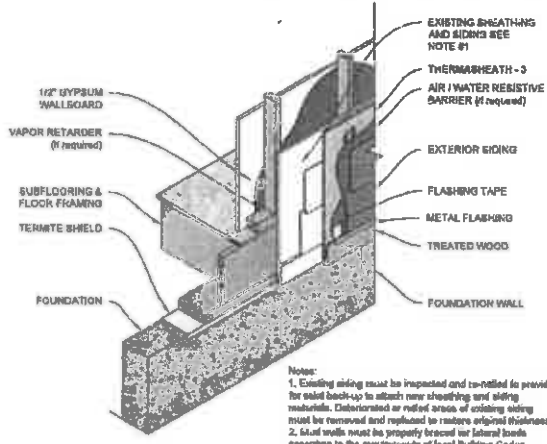
Cavity Wall Construction (Brick Veneer) - Thermasheath-3 is an excellent cavity insulation product fitting between the masonry block and finished brick veneer of any residential or commercial project. It may be secured to the dry face of the masonry block wall with a quality grade construction adhesive. Thermasheath-3 can be cut to fit between masonry joint reinforcements placed to tie the brick veneer to the concrete block back-up and installed horizontally in strips to allow the wall ties to extend beyond the face of the insulation leaving the proper air spaces as required.



Exterior Stucco Construction - Thermasheath-3 may be used as the insulative sheathing under hard coat stucco finishes. It may be secured to the studs with bugle-head screws, galvanized roofing nails or common-nails driven through cap washers. Cover the Thermasheath-3 with a suitable separation layer such as an organic or inorganic felt. Then, attach conventional metal wire lath and expansion joints with appropriate fasteners as dictated by the local Building Code. Rmax does not recommend the direct attachment of stucco, such as Portland cement or polymer-modified types, directly to the face of the insulation product. Consult stucco manufacturers for details.

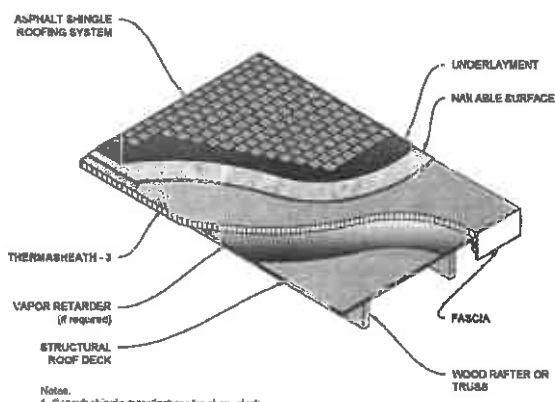


Re-Siding Construction - Thermasheath-3 may be used in retrofit construction provided the existing siding is sound and solidly attached. It is secured with galvanized nails of sufficient length to penetrate the old sidings, sheathings below and at least one inch into the existing wall studs. Then, cover the Thermasheath-3 with a suitable new siding of aluminum, vinyl, fiber cement, wood or wood fiber based products.



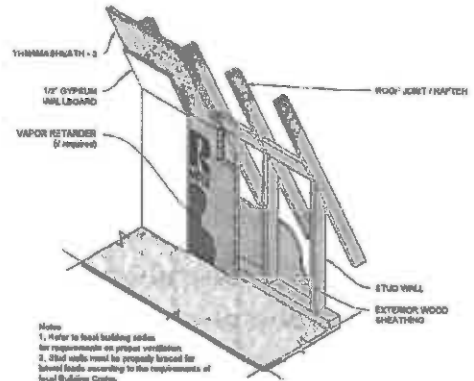
Notes:
 1. Existing siding must be inspected and re-nailed to provide for solid back-up to attach new sheathing and siding materials. Deteriorated or rotted areas of existing siding must be removed and replaced to restore original thickness.
 2. Stud walls must be properly braced for lateral loads according to the requirements of local Building Codes.

Roofing Construction - Thermasheath-3 is laid over a suitable roof deck such as tongue-and-groove timber, plywood or metal deck and covered with a suitable layer of plywood, wafer board or OSB. Asphalt or wood shingles, concrete or clay tiles or a standing seam metal roof may be installed over the insulated roof deck according to the roofing system instructions. **NOTE:** It may not be necessary to cover the insulation with a nailable surface when used under a standing seam metal roof assembly, consult manufacturer for details.



Notes:
 1. Consult shingle manufacturer for above deck roofing ventilation requirements.

Vaulted Ceiling Construction - Thermasheath-3 may be applied to the inside face of the roof rafters in vaulted ceiling construction to provide a layer of continuous insulation (ci) and increase the R-value of the roof. Simply nail the Thermasheath-3 to the face of the rafter, cover with a minimum 1/2" gypsum wallboard and finish.



Notes:
 1. Refer to local building codes for requirements on proper ventilation.
 2. Stud walls must be properly braced for lateral loads according to the requirements of local Building Codes.

Attics and Crawl Spaces - Thermasheath-3 may be applied to the interior face of stud walls or roof rafters within attics and crawl spaces to provide a layer of continuous insulation (ci). Simply nail the Thermasheath-3 to the framing members and cover with an approved ignition barrier such as 3/8" gypsum wallboard or 1/4" wood structural panel, particle board or hardboard.

LIMITATIONS

Thermasheath-3 is not recommended, nor warranted, for use as a commercial roof insulation directly under membrane systems. Consult Rmax Sales for suitable commercial roof insulation products.

Thermasheath-3 is not a structural panel. It must not be used as a nailing base for any other building products. Furthermore, stud walls insulated with Thermasheath-3 must be properly braced for lateral loads according to the requirements of local Building Codes.

WARNING

DO NOT leave Thermasheath-3 exposed. Polyiso foam is an organic material which will burn when exposed to an ignition source of sufficient heat and intensity and may contribute to flames spreading.

Installations utilizing Thermasheath-3 must be fully protected on the interior side of the building by a thermal barrier such as a minimum of 1/2" gypsum wallboard. Masonry or concrete that is a minimum of one inch thick, plywood that is a minimum of 1/2" thick and wood that is a minimum of one inch nominal thickness may also be recognized as suitable thermal barriers. Consult your local Building Official for specific governing codes and requirements.

The interior and/or exterior of the building should be protected with a suitable vapor retarder and/or a water resistive barrier, if required, based on local Building Codes and climate zone.

WARRANTY

See Rmax "Sales Policy" for warranty conditions. Rmax does not assume any responsibility or liability for the performance of any products other than those manufactured by Rmax. **NOTE: All Rmax products must be tarped, placed on skids and kept dry before and throughout construction.**



Doing one thing well in
so many ways...

Thermasheath-3

ADDITIONAL THERMAL R-VALUES

"R" means resistance to heat flow. The higher the R-value, the greater the insulating power. According to the ASHRAE Handbook of Fundamentals, the reflective foil facing of Thermasheath-3 contributes additional R-value to the overall assembly when installed against a dead air space. For example, ASHRAE assigns a 2.77 R-value to a 3/4" dead-air space against a reflective foil in a typical wall assembly. This value is in addition to the R-value of the polyiso foam - see System R-Value below.

Nominal Thickness	Thermal R-Value ¹	R/Inch	System R-Value
Inches	°F·ft ² ·hr/Btu	°F·ft ² ·hr/Btu·in	°F·ft ² ·hr/Btu
1.00	6.0	6.00	8.77
1.25	7.8	6.24	10.57
1.50	9.6	6.40	12.37
1.60	10.3	6.44	13.07
1.75	11.4	6.51	14.17
2.00	13.1	6.55	15.87
2.25	14.9	6.62	17.67
2.30	15.3	6.65	18.07
2.50	16.7	6.68	19.47
2.75	18.5	6.73	21.27
3.00	20.3	6.77	23.07
3.25	22.1	6.80	24.87
3.50	23.9	6.83	26.67
4.00	27.4	6.85	30.17
4.50	31.0	6.89	33.77

¹Thermal values are determined by using ASTM C518 test method at 75°F mean temperature on material conditioned according to PIMA Technical Bulletin No. 101.

Thermasheath-3 is shipped in bundles that are approximately 48 inches high and wrapped in plastic for easy handling. Visit www.max.com/resources.asp for a complete list of thicknesses and packaging information.

LIMITED WARRANTY

Notwithstanding anything herein to the contrary, neither Rmax Operating, LLC, nor any of its employees, representatives, agents or other affiliates (collectively, "Rmax") makes any representation or warranty whatsoever, whether express or implied, concerning the Product, except that the Product was manufactured in accordance with specifications set forth in ASTM C1289, at the time of purchase is free from any lien or encumbrance, and, for a period of one (1) year from the date of delivery of the Product, is free from defects in materials and workmanship. BUYER ACKNOWLEDGES AND AGREES THAT, EXCEPT AS PROVIDED ABOVE, THE PRODUCT IS BEING DELIVERED IN AN "AS IS, WHERE IS" CONDITION, AND WITH ALL FAULTS. RMAX, HEREBY DISCLAIMS, AND BUYER HEREBY WAIVES, ANY AND ALL OBLIGATIONS AND LIABILITIES OF RMAX AND RIGHTS, CLAIMS, AND REMEDIES OF BUYER AGAINST RMAX, WHETHER EXPRESS OR IMPLIED, AND WHETHER ARISING BY LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IMPLIED WARRANTIES ARISING FROM COURSE OF PERFORMANCE, COURSE OF DEALING AND USAGE OF TRADE, ANY WARRANTY WITH REGARD TO ANY CLAIM OF INFRINGEMENT THAT MAY BE PROVIDED IN SECTION 2.12(3) OF THE UNIFORM COMMERCIAL CODE, AND ANY AND ALL LIABILITY WITH RESPECT TO THE PRODUCT OR SERVICES PERFORMED OR PROVIDED BY RMAX. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE WARRANTIES EXPRESSED HEREIN ARE EXCLUSIVE AND ARE GIVEN IN LIEU OF (I) ANY AND ALL OTHER WARRANTIES EXPRESS OR IMPLIED, AND (II) ANY OBLIGATION, LIABILITY, RIGHT, CLAIM OR REMEDY. IN CONTRACT, TORT OR STRICT LIABILITY, WHETHER OR NOT ARISING FROM NEGLIGENCE, ACTUAL OR IMPUTED. THE WARRANTIES EXPRESSED HEREIN SHALL BE THE EXCLUSIVE REMEDY FOR A DEFECT IN OR DAMAGES RELATED TO THE PRODUCT.

LIMITATION OF LIABILITY AND BUYER'S REMEDIES

IN THE EVENT OF A DEFECT IN THE PRODUCT COVERED BY THE LIMITED WARRANTY SET FORTH ABOVE, RMAX SHALL, AT RMAX'S OPTION AND EXPENSE, REPAIR OR REPLACE THE DEFECTIVE PRODUCT OR REFUND THE AMOUNT PAID BY THE BUYER FOR THE DEFECTIVE PRODUCT. THE LIABILITY OF RMAX, IF ANY, AND BUYER'S SOLE AND EXCLUSIVE REMEDY FOR DAMAGES FOR ANY CLAIM OF ANY KIND WHATSOEVER, REGARDLESS OF THE LEGAL THEORY AND WHETHER ARISING IN TORT, CONTRACT, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY, SHALL NOT BE GREATER THAN THE ACTUAL PURCHASE PRICE OF THE PRODUCT TO WHICH SUCH CLAIM IS MADE WITHOUT LIMITATION OF THE FOREGOING. RMAX SHALL NOT BE LIABLE FOR BUYER'S LOSS OF USE, REVENUE OR PROFIT, OR FOR ANY OTHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING WITHOUT LIMITATION, LOSS OF GOODWILL OR ANTICIPATED PROFITS OR LOST BUSINESS), AND BUYER HEREBY WAIVES ANY RIGHT IT MAY HAVE TO SUCH DAMAGES.

This LIMITED WARRANTY shall not be applicable to defects or damages which, upon inspection by Rmax, are determined by Rmax to be caused by any of the following:

- a) Normal wear and tear;
- b) Intentional vandalism or abuse, or negligent use, misuse or abuse (including any usage not in accordance with the product instructions);
- c) Use of parts not manufactured or sold by Rmax;
- d) Accident or natural disasters, including, but not limited to, fire, flood, lightning, earthquake, tornadoes, hail, hurricanes, wind storms, acts of war, acts of terrorism or acts of God; or
- e) Improper installation, operation, handling, storage, application or design, modification, alteration, structural movement or maintenance.

Claims against Rmax under the provisions of the LIMITED WARRANTY must be made within thirty (30) days after the alleged defect to which the claim relates is discovered or should have been discovered, by written notice to Rmax at the following address: 13524 Welch Road, Dallas, Texas 75244; Attention - Technical Services. The written notice must be accompanied by the dated invoice or receipt received by the Buyer at the time of purchase. Rmax shall have sixty (60) days from receipt of such notice to inspect and analyze the alleged defective material. Under no circumstances shall the material to be disposed of or to be returned be delivered to Rmax unless the Buyer has received written instructions to do so. Buyer shall have no right to deduct the amount of any claim from Rmax's invoice until the claim is allowed or adjusted. Failure on the part of the Buyer to follow these provisions shall waive all rights under this LIMITED WARRANTY. Unless modified in writing signed by both Rmax and Buyer, this LIMITED WARRANTY is understood to be the complete and exclusive agreement between the parties, and supersedes all prior agreements, oral or written, and all other communications between the parties relating to the subject matter of this LIMITED WARRANTY. Some states and certain federal laws do not allow limitations on how long an implied warranty lasts, so such limitations or exclusions may not apply to you. In addition, some states do not allow the exclusion or limitation of incidental or consequential damages, so such limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

GENERAL CONDITIONS

Descriptions, specifications, and recommendations described herein are subject to change without notice. Consult with Rmax Sales for the latest information. The design and construction of a roof deck and supporting structure are the responsibility of the project architect, engineer, general contractor and the building owner. The selection and use of Rmax insulation and other roofing system components to meet the requirements for a project is at the sole discretion of the owner or his designated agent or representative.

No warranty, express or implied, as to characteristics, physical properties, or performance under any variations from controlled conditions at the time of manufacture is made. These provisions may not be altered in any way by a salesperson, employee, agent, or any other representative of Rmax, except by a letter from an officer of Rmax. Rmax does not assume any responsibility or liability for the performance of any product other than those manufactured by Rmax.

ACCEPTANCE OF ORDERS

All orders are subject to acceptance by Rmax at its corporate office in Dallas, Texas and are not binding on Rmax unless so accepted. This acceptance constitutes a complete and binding contract which cannot be modified or canceled without written consent of both parties. The conditions stated herein shall take precedence over any other conditions, and no contrary, additional or different provisions or conditions shall be binding on Rmax unless accepted by Rmax in writing. An order has been accepted by Rmax when it has been acknowledged in writing or shipped. No order will be accepted or produced until the manufacturing plant has accumulated orders of at least 15,000 board feet of any one product in any one thickness. Orders of less than 15,000 board feet can only be accepted if the manufacturing plant can coordinate the order with another order of similar thickness.

REVISION OF ORDERS

Change and/or cancellations of orders will be accepted providing the plant is notified five working days in advance of the requested shipping date. Notification of changes and/or cancellations must be verified in writing. On cancellations that occur after the five working day limit, the Buyer will be charged a restocking charge of 20% if the material has already been produced.

RETURN OF ORDERS

Requests to return material to Rmax's plant must be cleared in advance by Rmax's Plant Manager. Credit for approved requests to return material, when such requests are for reasons other than material of workmanship, will be issued on the basis of the price at which the goods were originally invoiced, less the actual price of re-conditioning and restocking as determined by Rmax. Such restocking charges will be no less than 20% of the invoice price of the goods. All return freight is the Buyer's responsibility.

TITLE-SHIPMENT-RISK OF LOSS

Title to all goods furnished under this contract of sale pass to the Buyer upon delivery by Rmax to the Carrier at Rmax's shipping point. All deliveries of goods are F O B Rmax's shipping point, unless otherwise noted in the face of Rmax's quotation. Routing of shipments shall be at the sole discretion of Rmax, unless directed otherwise by the Buyer at the time of placing an order. Rmax makes every effort to deliver orders at the requested delivery time; however, Rmax does not guarantee time deliveries. A delay in delivery or shipment will not be accepted as a basis for charge-back or claim for damage. Charges for re-shipment, diversions, driver-assisted unloading, detention, and/or damage assessed by the Carrier in accordance with provisions of the Carrier's tariffs, will be the Buyer's responsibility. All risks of loss or damage during transit pass to the Buyer with the transfer of title as noted above. All claims for loss or damage in transit must be filed with the Carrier by the Buyer. Material is loaded in accordance with the Carrier's loading instructions to insure delivery without damage. Rmax will give all reasonable assistance to the Buyer in collecting loss or damage claims from Carrier's by furnishing duplicate invoices, affidavits showing count when loaded, method of loading, etc. Buyer should in all cases immediately report loss and/or damage to Carrier and request inspection in case of damage.

FORCE MAJEURE

Rmax will not be liable for damages resulting from an interruption, delay, or failure to ship any order in accordance with the terms of the order where such failure is caused by any requirements of a government agency or authority, shortage of raw materials, strikes or other labor trouble, transportation delay, breakdown, accidents, fires, riots, wars, acts of terrorism, Acts of God, or other causes beyond the control of Rmax.

TERMS OF PAYMENT

Payment due per terms as listed on the invoice and contingent upon the Buyer having made prior satisfactory credit arrangements. Interest at the maximum rate permitted by law will be added to all invoices not paid within the stated terms as listed on the invoice.

PRICE POLICY - All products will be invoiced at the price in effect on the date of shipment. In the event of a price increase, all unshipped orders accepted by Rmax prior to the effective date of the price increase shall be invoiced at the increased prices in effect at the time of shipment.

TAXES - All applicable taxes on the production, transportation, or sale of Rmax's products shall be for the Buyer's account.

SHIPPING AREAS - The fifty states of the United States of America, Mexico and Canada.

SHIPPING POINTS AND MANUFACTURING PLANTS - (1) Rmax Operating, LLC, 1649 S Batesville Road, Greer, South Carolina 29650 (2) Rmax Operating, LLC, 13524 Welch Road, Dallas Texas 75244 (3) Rmax Operating, LLC, 210 Lyon Drive, Fernley, Nevada 89408

SHIPPING METHODS - Rmax reserves the right to choose the Carrier and routing, unless otherwise directed by the Buyer in writing at the time of placing an order. Additional costs associated with Buyer specified Carriers and/or routes shall be for the Buyer's account. The standard method of shipment shall be via forty-five (45) foot, forty-eight (48) foot, or tandem flatbed trailers, where authority allows, at Rmax's option. Stopover or pooled truckloads are permitted, but limited to one stop and a final destination. The stopover location must be in line with the final destination and not in excess of 150 miles between stops. Applicable stopover charges shall be applied to the face of the invoice.

TRUCKLOAD QUANTITIES

1. 4' X 8' panels - twenty-four (24) units per forty-eight (48) foot flatbed trailer.
2. 4' X 4' panels - forty-eight (48) units per forty-eight (48) foot flatbed trailer;
3. Custom length panels - Orders for lengths other than those standards noted above usually cannot be accommodated on standard flatbed trailers to permit loading of the full truckload quantity required. Buyers ordering other than standard four or eight foot panels are required to order a variable item of standard length and size to fill the load, or pay any increase in freight due to any inability to load full truckload quantity caused by nonstandard length of item(s) ordered.

SPECIAL ORDERS - No order will be accepted or produced until the manufacturing plant has accumulated orders of at least 15,000 board feet of any one product in any one thickness. Orders of less than 15,000 board feet can only be accepted if the manufacturing plant can coordinate the order with another order of like thickness.

LEAD TIMES - Lead time for the standard insulation products shall be five (5) to ten (10) working days from the receipt of the order at Rmax's manufacturing plant. Lead time for nonstandard length insulation products shall be ten (10) to twenty (20) working days from the receipt of the order at Rmax's plant. This is based upon minimum orders of 30,000 board feet. Lead time for stopover or pooled freight loads shall be as noted above except that the time shall apply only from the time that Rmax can arrange the required pool truck.

LTL SHIPMENTS

- LTL shipments are permitted subject to the following conditions:
1. Minimum order is approximately 15,000 board feet.
 2. All LTL shipments shall be invoiced at the applicable list price plus a carton charge.
 3. Shipments will be freight collect with all freight charges for the Buyer's account.

CUSTOMER PICKUP - Customer pickup of ordered goods shall be permitted provided that the Buyer makes prior arrangement with Rmax's Plant Order Department. The Buyer shall be required to pick up goods ordered for Customer Pickup within 48 hours of notice of availability. The minimum pickup shall be ten (10) bundles.

GENERAL PROVISIONS

This document with all attachments constitutes the entire agreement between Rmax Operating, LLC, and the Buyer and is intended as a final, complete and exclusive expression of the agreement. This agreement supersedes all prior representations, understandings and agreements. Any failure on the part of Rmax Operating, LLC to insist upon the performance of any term herein shall not be construed as a waiver or relinquishment of Rmax Operating, LLC's right to such performance and Buyer's obligation shall continue in full force and effect.

WARNING - Polysocyanurate is an organic material which will burn when exposed to an ignition source of sufficient heat and intensity, and may contribute to flames spreading.

CHOICE OF LAW

~~THE AGREEMENT SHALL BE GOVERNED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS, WITHOUT REGARD TO ITS CONFLICTS OF LAW OR CHOICE OF LAW PRINCIPLES.~~

FORUM SELECTION CLAUSE

~~ANY DISPUTE ARISING OUT OF OR RELATING TO THIS TRANSACTION SHALL ONLY BE LITIGATED IN AN APPROPRIATE FEDERAL OR STATE COURT LOCATED IN DALLAS COUNTY, TEXAS.~~

WAIVER OF JURY

~~EACH PARTY HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHTS TO TRIAL BY JURY WITH RESPECT TO ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS TRANSACTION.~~

SALES POLICY

(01-10)

UA - Uses, Applications

Animal Control
Centers
Animal Science
Facilities
Bakeries
Cafeterias
Car Washes
Cheese Plants
Clean Rooms
Cold Storage
Commercial Buildings
Confinement Buildings
Correctional Facilities
Decking
Doors
Farm Buildings
Floors
Food Processing
Plants
Freezer Rooms
Kennels
Kitchens
Labs
Liner Panel
Locomotives and
Caboose
Mansards
Meat Packing Plants
Mezzanine Floors
Milking Parlors
Partitions
Poultry Hatcheries
Poultry Processing
Areas
Refrigerated Trucks
Restaurants
Rest Rooms
Schools
Shelving
Shower Areas
Signs
Supermarkets
Truck Trailer Bodies
Trailer Side Kits
Veterinary Facilities
Warehouses
Windows

09775/NUD
BuyLine 3873

NUDO®

Products, Inc.

Prelaminated and Liner

Panel Systems

*For Walls, Ceilings, Floors, and
Other Applications*

FIBER-LITE®

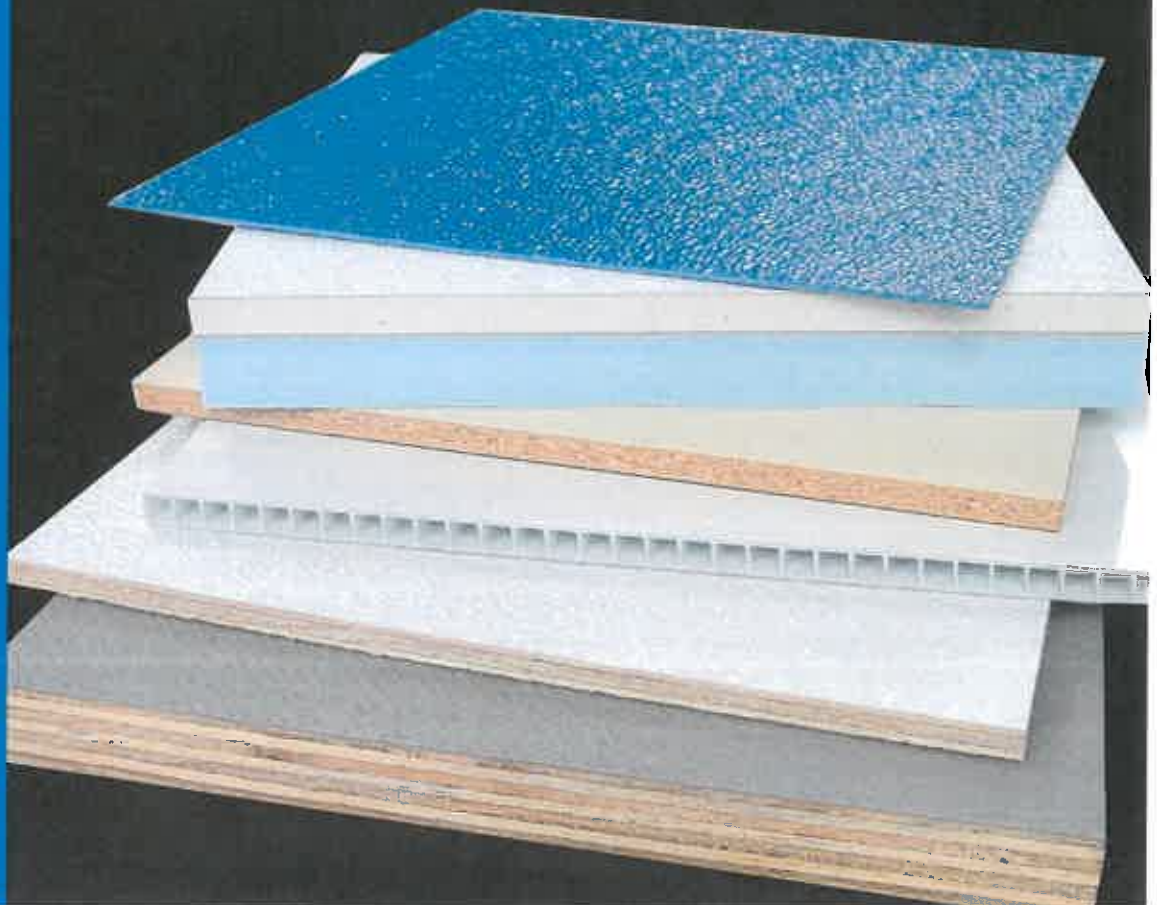
ALUMACORR™

NU-ALUM®

NU-POLY®

FIBERCORR™

KYDEX®



NUDO Fiber-Lite® Prelaminated Panels

**.030
Prelaminated
Colors Available**

The answer to strength, durability, sanitation and easy maintenance. The Fiber-Lite panel is a tough, fiberglass sheet factory laminated to waferboard or plywood combining the many advantages of wood and fiberglass (FRP). Ideal for new construction of walls, ceilings or partitions.



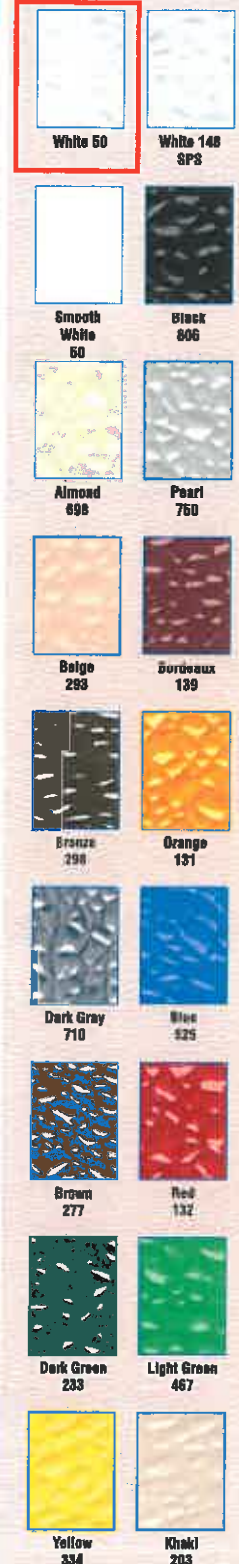
Fiber-Lite® panels can be used for walls, ceilings, partitions, fascias, mansards or any number additional uses and applications

Fiber-Lite® panels install directly to studs, ceiling joists, furring strips or solid surfaces and some Fiber-Lite® panels may be used for drop in ceiling tiles.

Fiber-Lite® panels can be used for interior (exterior available) applications. Proper selection of substrates and overlay thickness is required according to use of panel.

Fiber-Lite® panels may be used where USDA (United States Department of Agriculture), FDA and Agriculture Canada acceptance is required.

- ◆ White textured or smooth fiberglass (FRP), .030" laminated to waferboard, plywood, fire-rated particleboard or gypsum board. USDA certified surface.
- ◆ Wood substrate for structural strength rigidity.
- ◆ Resists moisture, stains, odors, chemicals, impact and scratches.
- ◆ Attractive textured or smooth surface will not hold dirt or food particles.
- ◆ 100% moisture barrier – 8 mil poly backer available.
- ◆ Cleans easily with steam, high pressure sprayers or soap and water.
- ◆ Class C Fire-Rated surface. Class A available.
- ◆ All necessary moldings and fasteners available for easy installation.
- ◆ Tongue and groove panels available.
- ◆ USDA and MID certified surface.
- ◆ Installs directly to studs, ceiling joists, furring strips, solid walls or drop-in ceilings.
- ◆ Available in colors, various sizes and other substrates.
- ◆ .050" and .090" (FRP) overlays available for high abuse areas.



Physical and Engineering Properties of Fiberglass .030

	ASTM No.	Value/Units*
Brocal Hardness	D2583-934-1	35 Avg.
Flexural Strength	D790	17,000 P.S.I.
Flexural Modules	D790	6.9 x 10 ⁶ P.S.I.
Compressive Strength	D695	19,000 P.S.I.
Compressive Modules	D695	8.1 x 10 ⁶ P.S.I.
Tensile Strength	D638	12,000 P.S.I.
Tensile Modules	D638	9.43 x 10 ⁶ P.S.I.
Elongation	D638	1.7%
Ignition Temperature	D1929	650 F+
Water Absorption	D570	.4% at 72 Hrs.
IZOD Impact	D256	6.0 Ft.-Lbs./In.
Flame Spread Index	E84-81A	195
Smoke Developed Value	E84-81A	360
Class		C/3
Thermal Expansion	D696	1.57 x 10 ⁻⁴ IN/IN/F
Specific Gravity	D792	1.53

Thicknesses specified for the panels are nominal. Manufacturing tolerances may result in thickness variances of ± 1/32". Values/Units shown are for Class C/3 Fire Rating, Class A/1 rating available. (Flame spread 25, smoke 335).

* F3W375-ASTME-84-97A (Flame Spread 175 Smoke Developed 250).

* These are typical values and are not to be construed as specific product limits.

* Product No.	Thickness & Description	Sizes
F3P250	1/4" Fir Exterior Plywood	4'x8'
F3P375	3/8" Fir Exterior Plywood	4'x8', 10', 12'
F3W375	3/8" Waferboard – OSB	4'x8', 10'
F3DF375-FR	Fire-Rated Particleboard	4'x8', 10'
F3P750	3/4" Fir Exterior Plywood	4'x8', 10', 12'
F3PB500-FR-MR	.030" Text. FRP 1-Side on 1/2"	4'x8', 10', 12'
F3PB500-FR-MR-F200-X-CT	Fire-res./moisture res. gypsum w/2"EPS foam	
F3W500	1/2" Waferboard - OSB	4'x8'
F3DF500-FR	1/2" Fire Rated Particleboard	4'x8', 10'
F3W625	5/8" Waferboard – OSB	4'x8'
F3PB625-FR-MR	5/8" Fire-Rated Gypsum	4'x8', 10'

* Partial product list

Note: Use letter - S - for smooth (F3P375)

NUDO Panel Components

Sealants

Super Silicone Sealant™

- ◆ 100% Rubberized Silicone
- ◆ Seals and bonds vinyl and aluminum moldings
- ◆ Seals dividers, joints/seals around fasteners
- ◆ Waterproofs and insulates
- ◆ USDA certified
- ◆ 10.3 oz. tubes

Product No.	Color
SS-W	White
SS-C	Clear
SS-A	Almond
SS-G	Gray
SS-B	Bronze

Adhesives

- ◆ General purpose adhesive
- ◆ Available solvent or latex
- ◆ High strength
- ◆ Resistant to temperature changes
- ◆ Fast setting
- ◆ Bonds to most surfaces

Product No.	Description
PDF	11 oz. Tube
PDF-Q	Quart Tube
PDF-Q-L	Quart Tube
PDF-S-SF	5-gal. Pail-Solvent
PDF-4LF	4 gal. Pail-Latex

Nylon Rivets

- ◆ Pin rivets fasten panels by expanding into or behind substrate, colors available.
- ◆ One piece rivets fasten any panel to any wood substrate.
- ◆ Plastic and chrome pin rivet fastens to wood, masonry, metal or insulation material.
- ◆ Chrome pin rivets have high shear strength but should be used in low moisture areas

Product No.	Description
R75-P	3/4" Plastic Pin
R100-P	1" Plastic Pin
R150-P	1 1/2" Plastic Pin
R200-P	2" Plastic Pin
R300-P	3" Plastic Pin
R400-P	4" Plastic Pin
R500-P	5" Plastic Pin
R600-P	6" Plastic Pin

Product No.	Description
R100	1" One Piece
R162	1 5/8" One Piece
R212	2 1/2" One Piece
R312	3 1/8" One Piece
DB-K	Drill Bit (size "K".281)
DB-M	Masonry Drill Bit (.281)

Product No.	Description
R75-C	3/4" Chrome Pin
R100-C	1" Chrome Pin
R150-C	1 1/2" Chrome Pin
R200-C	2" Chrome Pin
R300-C	3" Chrome Pin
R400-C	4" Chrome Pin

Stainless Nails or Screws

- ◆ Common, drive screw shank
- ◆ White, painted, checkered head, diamond point

- ◆ 302-304 stainless steel
- ◆ #8 Phillips pan-head painted white or bronze
- ◆ #304 or 18-8 stainless steel

Product No.	Description
N112	1 1/8" nail
N150	1 1/2" nail
N200	2" nail
N250	2 1/2" nail
N300	3" nail



















Product No.	Description
SS100	1" Screw
SS150	1 1/2" Screw
SS200	2" Screw

NUDO
PRODUCTS, INC.

1500 Taylor Avenue • Springfield, IL 62703
U.S.A. or Canada 800-826-4132 217-528-5636



















Vinyl Moldings

- ◆ Available in 8', 10' and 12' lengths
- ◆ Interior use. Exterior available.
- ◆ Colors available.
- ◆ Custom lengths and profiles available.
- ◆ USDA certified
- ◆ Partial product list below.

 V-1 Cap for .090 Panel	 V-9 Division bar for 3/8" panel	 V-11 "T" Bar
 V-3 Division bar for .090 Panel	 V-21 Inside Corner and Cove for 3/8" Panel	 V-18 Inside Corner Angle 1 1/4" x 1 1/4"
 V-5 Inside Corner and Cove for .090 Panel	 V-23 Outside Corner for 3/8" Panel	 V-15 Outside Corner Angle 1 1/4" x 1 1/4"
 V-7 Outside Corner for .090 Panel	 V-29 Two-piece Division Bar	 V-17 Cap for 5/8" Panel
 V-31 Division bar for 1/4" Panel	 V-33 Two-piece Outside Corner and Cove	 V-27 Cap for 2" Foam Panel
 V-19 Cap for 3/8" Panel	 V-25 Baton Strip	 V-45 "T" Bar Dual Burometer

Aluminum Moldings

- ◆ Available in 8' lengths * bronze available/white
- ◆ Interior or Exterior use

 A-28 Cap for .090 Panel	 A-6 Division bar for 3/8" Panel	 A-48 Adjustable Outside Corner Angle 2" Legs
 A-30 Division Bar for .090 Panel	 A-8 Inside Corner for 3/8" Panel	 A-18 Adjustable Inside Corner Angle
 A-32 Inside Corner and Cove for .090 Panel	 A-10 Outside Corner for 3/8" Panel	 A-20 Adjustable Outside Corner Angle 1" Legs
 A-34 Outside Corner for .090 Panel	 A-12 Base Cove for 3/8" Panel	 A-22 Floor and Ceiling Cove
 A-2 Cap for 3/8" Panel 1/2" Face	 A-14 Baton Strip	 A-24 Base Cover
 A-4 Cap for 1/2" Panel	 A-16 "T" Bar	 A-26 Cap for 5/8" Panel

Fax 217-528-8722 www.nudo.com

APA Performance-Rated Wood Structural Panels as Thermal Barriers for Foam Plastics

Tests conducted in 1986 and 1990 for APA by an approved independent fire test laboratory demonstrated that APA-trademarked wood structural panels with a minimum thickness of 23/32 inch [plywood manufactured with faces of Douglas-fir veneer and western species in the inner plies or oriented strand board panels (OSB) with aspen species] met the required 15-minute thermal-resistance test standard as specified in the 2009 International Building Code (IBC), Section 2603.4 for the use with foam plastic. This test limits the rise in temperature on the unexposed surface to 250 degrees F or less when the barrier material is subjected to the ASTM E 119 Time/Temperature exposure. Test results apply when panel edges are blocked (e.g., supported by and fastened to nominal 2-inch wood framing).

The original tests were accomplished in accordance with Uniform Building Code Standard 17-3⁽⁶⁾ entitled *Test Method for the Evaluation of Thermal Barriers*. This test method is the same as that required in Section 2603.4 of the 2009 IBC.

When foam plastic roof insulation is installed over minimum 15/32-inch-thick wood structural panel roof sheathing "with edges supported by blocking, tongue-and-groove joints or other approved type of edge support, or an equivalent material," IBC Section 2603.4.1.5 permits an exemption from the 15-minute thermal barrier requirement (i.e. 15/32-inch-thick wood structural panels with an appropriate edge support prescriptively meets the requirement of the code without the need to meet the 15-minute barrier requirement).

⁽⁶⁾ Existing building code standard test method applicable at the time of testing, identical to methods listed in IBC, Section 2603.4.

<p>We have field representatives in many major U.S. cities and in Canada who can help answer questions involving APA trademarked products. For additional assistance in specifying engineered wood products, contact us:</p> <p>APA HEADQUARTERS: 7011 So. 19th St. • Tacoma, Washington 98466 • (253) 565-6600 • Fax: (253) 565-7265</p> <p>APA PRODUCT SUPPORT HELP DESK: (253) 620-7400 • E-mail: help@apawood.org</p>	<p>www.apawood.org</p> <p>Form No. TT-0608</p> <p>Revised March 2010</p>
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