

CertainTeed
WeatherBoards™
FiberCement Siding

Contractor Guide

CertainTeed 
Quality made certain. Satisfaction guaranteed.™



Table of Contents

FiberCement Siding - The Opportunity ... 3
Quality from CertainTeed

Introducing WeatherBoards™ 4

- DuraPress®
- FiberTect™
- Prefinish Service

WeatherBoard's Product Line 6

Contractor Support 8

Installation Tips 10

Material Safety Data 12

Specifications 14

No Other Manufacturer of Fiber Cement Siding Knows Building Products Like CertainTeed

Fiber Cement Siding – The Opportunity

- Fiber cement is the fastest-growing product in the siding market
- Expected to reach 20 million squares by 2007
- Multiple applications
 - New Construction
 - Replacement
 - Remodeling
 - Interior Uses
- Desirable alternative to wood and hardboard siding products
- All the aesthetics of wood without the maintenance hassles
- Unique benefits as a building material
- Guaranteed results – 50-year limited transferable warranty with SureStart™ Warranty protection
- Backed by the industry's leading siding manufacturer – CertainTeed

- Quality from a name you trust – CertainTeed
- America's most diversified building products company with sales over \$2.5 billion in 2001
- A wholly owned subsidiary of Saint-Gobain, the world leader in glass and building materials
- Industry-leading financial and technical resources
- Website traffic – Drive leads to your business thru www.certainteed.com



WeatherBoards™

FiberCement Siding

Top 10 Reasons WeatherBoards Siding is Better than the Competition:

1. DuraPress® makes the best-looking grain on the market.
2. Superior resistance to damaging moisture – no delamination ever.
3. Proven highest durability.
4. CertainTeed's exclusive precure chamber stops chalking.
5. FiberTect™ Sealant saves money.
6. The longest paint "window" means greatest job site flexibility.
7. Prefinishing offers convenience, beauty and savings.
8. Peace of mind with a solid warranty.
9. CertainTeed – the reliability of a proven brand.
10. CertainTeed Building Solutions®.


The Best-Performing Fiber Cement Product on the Market

- Excellent sales opportunity
- All the appeal of wood, without the hassles of wood
- Consistent quality and excellent dimensional stability
- Class 1 (A) Fire Rating
- Impervious to wood-boring insects
- Resists damaging effects of salt spray and UV rays
- Will not rot
- High job site durability






CertainTeed's Proprietary DuraPress® System Provides:

- Authentic, consistent grain definition 
- Tougher product less likely to fracture on impact
- 60% higher interlaminar bond strength results in superior freeze/thaw protection
- Exclusive precuring chamber reduces surface chalking

CertainTeed's Exclusive FiberTect™ Sealing System is Far More than a Primer:

- FiberTect penetrates into and bonds with FiberCement 
- Seals against unwanted moisture significantly better than other competitive priming systems
- Bonds to the coatings for a longer-lasting, better-looking finish
- The industry's longest paint window, based on written warranties
- Requires approximately 15% less paint

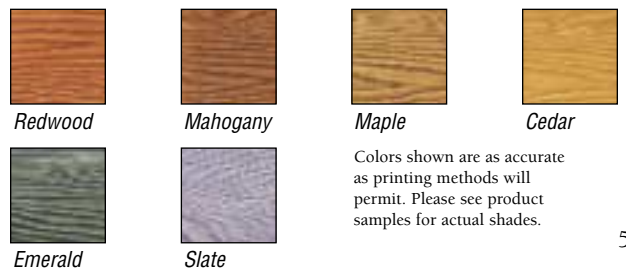
Select from the WeatherBoards Prefinish Service

- Readily available in 18 rich, high-quality colors
- Coatings applied to exacting standards results in a higher quality finished job
- Factory-applied over exclusive FiberTect™ Sealer for best performance
- Reduce builder/contractor dependence on painters' skills
- Fast delivery
- Professional packaging with protective slip sheeting

Prefinish Paint Colors



Premium Stains



Colors shown are as accurate as printing methods will permit. Please see product samples for actual shades.

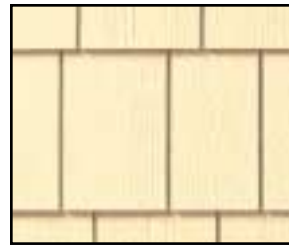
The WeatherBoards™ Product Line

WeatherBoards Shapes

WeatherBoards Shapes decorative sidings are available in lap and panel designs with dramatic shadow lines for maximum appeal. These are suitable for accents, intermediate or full wall applications.



Perfection Shingles
8 1/4" x 12' (7" Exposure)



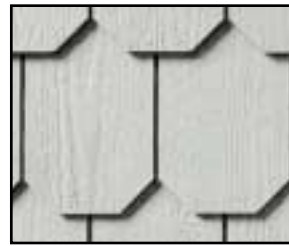
Random Square Straight Edge
16" x 48" (7" Exposure)



Random Square Staggered Edge
16" x 48" (7" Exposure)



Half-Rounds
16" x 48" (7" Exposure)



Octagons
16" x 48" (7" exposure)

WeatherBoards Lap Siding

There are many great choices in realistic grains and textures. Select from lap, dutchlap and beaded profiles in a generous range of heights. WeatherBoards FiberCement Siding can be installed to resist hurricane-force winds, too.



Textured Dutchlap Siding
8 1/4" x 12'



Textured Beaded Lap Siding
7 1/2" x 12'



Smooth Beaded Lap Siding
7 1/2" x 12'



Smooth Lap Siding
5 1/4" x 12' 8-1/4" x 12'
6 1/4" x 12' 9-1/4" x 12'
7 1/4" x 12' 12" x 12'



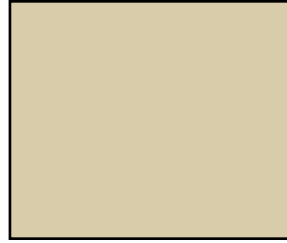
Cedar Lap Siding
5 1/4" x 12' 8 1/4" x 12'
6 1/4" x 12' 9 1/4" x 12'
7 1/4" x 12' 12" x 12'

WeatherBoards Vertical Siding

Whether you choose stucco, cedar or smooth, WeatherBoards vertical panels look great. The wide choice of sizes lets you fit the product to the wall and should cut labor costs and on-site waste.



Stucco Vertical Siding
4' x 8', 4' x 9', 4' x 10'



Smooth Vertical Siding
4' x 8', 4' x 9', 4' x 10'



Cedar No Groove Vertical Siding
4' x 8', 4' x 9', 4' x 10'



Cedar 8" Groove Vertical Siding
4' x 8', 4' x 9', 4' x 10'

WeatherBoards Soffit

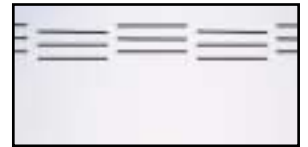
These siding-compatible styles, together with recommended ventilation accessories, will complete and complement your home's siding installation.



Smooth Soffit
12" x 12', 16" x 12'



Cedar Soffit
12" x 12', 16" x 12', 24" x 12'



Smooth Ventilated Soffit
12" x 12', 16" x 12'



Cedar Ventilated Soffit
12" x 12', 16" x 12', 24" x 12'



Textured Side



Smooth Side

CertainTeed Composite Trim

For corners, windows, doors and fascia, use CertainTeed Composite Trim. Nominal 1" x 4" x 12' and 1" x 6" x 12' sizes. Works like wood; FiberTect-TR™ sealed.

CertainTeed will help you profit with WeatherBoards™

Master Craftsman Education and Development Program:

Become a Master Craftsman – Take courses and pass tests to better serve your customers

Step-by-Step Installation – Videos, workbooks and tests will provide you and your crew with installation techniques for greater efficiency and productivity

CertainTeed Product Knowledge Programs – Learn everything you need to know about other CertainTeed building materials

Education Rewards:

Certificate of Completion – Use it to promote your knowledge and professional credentials to prospective customers

Free Website Listing – An opportunity to list your services and generate business via www.certainteed.com

- The CertainTeed website has over 60,000 hits per month!

Reference:

QuickReference™, 800-233-8990 – This small but surprisingly comprehensive guide is designed to answer all your basic questions about CertainTeed WeatherBoards FiberCement Siding

Fax-on-Demand Service, 800-947-0057 – Obtain immediate information about any CertainTeed product through your fax machine

Remodeler HelpLine, 800-233-8990 – A staff of technical specialists are ready to help answer your questions and concerns

Sales Support:

Style and Design Ideas – Presentation materials, CD-ROMs and interactive computer programs give your prospects remodeling ideas

Award of Excellence – Your best examples of creativity, quality craftsmanship and business professionalism can earn awards through this annual program

The Sales Support Group means help is just a phone call away – 800-233-8990

Information Support:

Professionally Prepared Literature – Four-color glamour and pocket brochures are full of great ideas for your customers; sell sheets and warranties

Product Samples – Let your customers get their hands on the products – compare them to wood and competitive products

Displays – For your showroom, or make a name for yourself in local fairs and home shows

Job Site Sign Program – “Start the word traveling” about your good works. A professional job sign is a great, low-cost means of promoting your company

Building Solutions® Membership:

Proven Performance Products – A complete range of building materials that will meet or exceed your expectations and those of your customers

Design and Technical Support – Learn how to get the most effective use of CertainTeed building materials

Remodeler

Build skills and business via the Master Craftsman program and get recognition through Award of Excellence. You'll also benefit through lead generation developed on www.certainteed.com

Architect

Available via the internet is a series of corporate CEU courses. We'll also provide a complete product binder and whatever information and specifications you need

Builder

We offer a model home program, Selection Center merchandising and an online builder locator. Also the Master Craftsman education and development program and Award of Excellence

Customer Satisfaction Solutions

*Warranty Program** – Strongest warranty protection in the business

*SureStart™ Warranty Protection** – Exclusive additional protection covering most CertainTeed products

Consumer Information Hotline, 800-782-8777 – When your customers need answers to their questions

* Please see actual warranties for details and conditions.



Installation Tips

CertainTeed will provide complete installation instructions, from how to handle the material to which tools provide the best results. These instructions are available by calling the Sales Support Group at 800-233-8990, via Fax-on-Demand or on the web at www.certainteed.com/pro/siding/ctfiber.

Safety

Fiber cement products should be cut in open, well-ventilated areas. When cutting fiber cement with a power saw, workers must wear dust masks. If it is necessary to cut siding indoors or in a poorly ventilated area, you must use a NIOSH/MSHA-approved half mask with a HEPA filter cartridge-equipped respirator. Safety glasses are also required.

Storage and Handling

Keep fiber cement siding clean and protect it from direct exposure to the weather.

It must be stored

on a smooth, flat surface, not directly on the ground. Moisture-saturated fiber cement siding

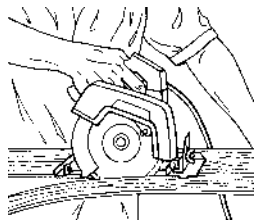
must not be installed. If saturated, let it dry before installation.

Carry fiber cement siding on its edge rather than flat. When cutting large pieces, support it at the ends and near the cut.



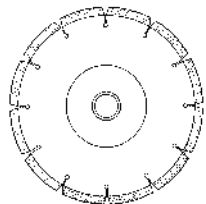
Cutting

For best results, cut fiber cement siding face down with a circular power saw with a diamond blade. Cut four to five pieces at a time if desired. A diamond blade should last through five to six residential installations. Carbide blades can also be used. These cut faster but wear out quickly. An average-size home may take five or more carbide blades. A power miter saw equipped with a diamond blade works well. For irregular or radius cuts, use a mechanical shear or a jigsaw with medium or coarse-grit carbide blade. Use a standard hole saw for making penetrations such as those needed for plumbing, small vents or wiring. Fiber cement siding can be ripped lengthwise partially or at its full length. For example, a 1-1/2" wide starter strip can be ripped with no problem. Handle and install notched or narrow pieces carefully.



Recommended Diamond Blades:

- WeatherBoards 7-1/4" Diamond Blade



Recommended Power Shears:

- Porter-Cable (Model 6604)
- Kett
- Snapper

Fasteners

For applications through wood sheathing, use 6d (6 penny) smooth shank nails. Over sheathing that is thicker than 1 inch, use 8d (8 penny) nails. This will enable the nails to penetrate the required 1-1/4 inch. Nails must be round head, non-corrosive and either double hot-dipped galvanized or stainless steel. If using screws to fasten fiber cement siding, such as to metal studs, be sure that at least three threads penetrate the studs. Use a self-tapping corrosion-resistant ribbed bugle head screw. Staples must not be used.

Recommended Nails:

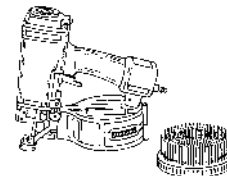
- Maze (available in bulk, collated or collated color matched)
- Tree Island (available in bulk or collated)

Recommended Screws

- ITW BUILDEX Co – “Rock on Screws”

Nailers

Pneumatic nailers work best. They speed installation and help ensure consistent penetration. A pneumatic nailer with a flush mount attachment will set the nails to the proper depth.



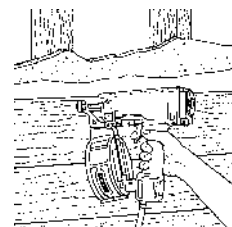
Do not over-drive nails, particularly when installing fiber cement siding over foam-type sheathing. Adjust tool air pressure to field conditions.

Recommended Pneumatic Nailers:

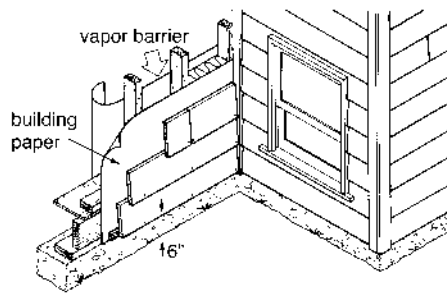
- Duo-Fast Coil Nailer (RCN60-225)
- Max Coil Nailer
- Hitachi
- Senco Coil Nailer (SCN56)

Preparation

Always consult local building codes for special nailing requirements. For blind nailing fiber cement siding, studs should be 16" on center. For face nailing, spacing can range from 16" to 24" on center. In areas where sustained winds may exceed 80 mph, consult nailing schedules in CertainTeed NER537 or ICBO ER-5735. Before you apply fiber cement siding to studs or over wood sheathing we recommend that you install a house wrap. (Consult local building codes in warm and humid areas as the requirement for house wrap or vapor barriers may vary.) Be sure the wrap extends below the framing onto the rim joist. Overlap and tape all joints before installing siding.



Installing

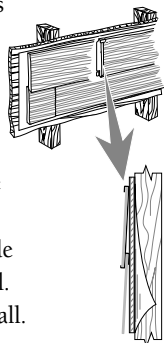


Be sure to install all siding with the proper surface facing out.

Find the lowest point of the sheathing and partially drive a nail at one corner an inch above the low point. Attach a chalk line, go to the next corner and snap a level line. Repeat until there is a level chalk line around the entire house. Install a starter strip. It should be fiber cement or pressure-treated wood at least 1-1/2" wide and 1/4" thick. Position it so the bottom edge of the siding will project at least 1/8" below the bottom of the starter strip. Attach the siding using the starter strip as a guide. Install the first course no closer than 6" to the finished grade and at least 1" above surfaces where water may collect. Leave a small gap the thickness of a nail between the siding and trim to allow for structural movement. Nail the siding at all studs, shimming as needed to prevent drawing siding to uneven walls. Siding should overlap 1-1/4". For blind nailing, place nails 3/4" from the top of the plank and no closer than 3/8" from the butt edge. Nail perpendicular to the surface. Don't overdrive the nails. Nail from the center out or from end to end. To face nail, place the nails 3/4" from the bottom of the overlapping plank, to ensure the nail penetrates both courses of siding. If the corners begin to break, pre-drill the holes. Butt joints must be backed by framing. Stagger the joints on subsequent courses. Shim the siding as needed to prevent drawing siding to uneven walls. All panels must be gapped 1/8" and caulked where they meet trim at corners, doors and windows. Butt joints of FiberTect™-Sealed and Prefinished panels should be moderately butted and not caulked. Unprimed panels and cut ends must be gapped 1/8" and caulked at butt joints.

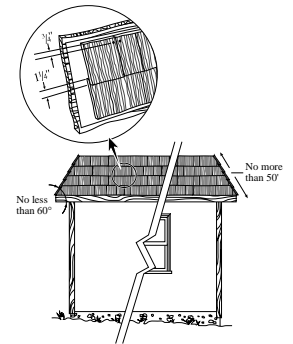
Using Off-Stud Joiners

Insert the butt edge of the siding into the off-stud joiner. Center the edge of the siding in the joiner. Next insert the edge of the next siding panel into the other side of the joiner. Fasten the siding to the wall. Do not fasten the off-stud joiner to the wall.



Non-Vertical Walls and Mansard Roofs

WeatherBoards siding can be installed on non-vertical walls and Mansard-style roofs when the walls are at least 60° measured from the plane of the ground and the slope of the wall is no longer than 50'. To install WeatherBoards on structures with eaves, begin the top of the non-vertical wall under the eave. On structures without eaves, install flashing so water does not run down behind the siding.



CertainTeed Composite Trim

Trim accessories should be durable and water- and weather-resistant. If you plan to paint the trim, test it for color compatibility with the siding before you install it. Composite, cedar, spruce, pressure-treated lumber and vinyl trim have all been used successfully with fiber cement siding. Typically, trim is from 3" to 12" wide, though inside corners are usually 1"-2" square posts. Carefully consider the length and thickness of trim. The proper choice will minimize joints, seams and wasted material. If vinyl corners are to be used, back-caulk the corner to minimize the possibility of water run-down wicking any unfinished edges of the siding. Where siding meets trim, leave a 1/8" gap (the thickness of a nail), and caulk with a quality, 100 percent acrylic caulk that is paintable and compatible with both the siding and trim. Use a polyurethane sealant that meets ASTM Standard C-920. And before you caulk, remove any fiber cement dust from the area with a brush. With non-corrosive materials, install flashing around all doors, windows, rakeboard, chimneys and other areas where needed. Drip cap flashing above all openings will help ensure a weather-tight installation.

Painting

FiberTect™-Sealed, must be painted within 24 months of installation. Only the factory application of the FiberTect Sealing System allows the longer paint "window" (check your warranty). Before you apply stain or paint, wipe the boards clean of residual dust or dirt. Finish paint or stain must be a high-quality 100 percent acrylic latex paint. Oil-based paint must not be used on fiber cement siding. CertainTeed WeatherBoards FiberCement Siding and Soffit must be allowed to breathe, therefore it must never be primed, painted or stained on the back side.

Material Safety Data Sheet

SECTION I

<u>Manufacturer's Name</u>	<u>Trade Names</u>	<u>Hazard Ratings</u>	
CertainTeed	WeatherBoards™	4 = Extreme	Fire: 0
	Shapes	3 = High	Toxicity: 0
	Lap	2 = Moderate	Reactivity: 0
	Vertical	1 = Slight	Special: None Known
	Soffit	0 = Insignificant	
	Underlayment		
	BackerBoard		

SECTION II - INGREDIENTS

Formula: Cellulose FiberCement

<u>Type</u>	<u>CAS #</u>	<u>% Weight</u>	<u>TLV Units</u>
1. Calcium Silicate	1344-95-2	30-55	Respirable 5 mg/m3 - Total Dust 10 mg/m3
2. Crystalline Quartz Silica	14808-60-7	45-55	.10 mg/m3
3. Cellulose Fiber	9004-34-6	5-15	Respirable 5 mg/m3 - Total Dust 10 mg/m3
4. Hydrous Aluminum Silicate	1332-58-7	2-8	.10/mg/m3

SECTION III - PHYSICAL DATA

Boiling Point (F): N/A	Vapor Pressure (MM Hg): N/A	Vapor Density (Air = 1): N/A
Evaporation Rate: N/A	Specific Gravity (H 2 O = 1): N/A	% Volatile by Weight: N/A
VOC Grams/Litre:N/A	Appearance & Odor: No Odor	

SECTION IV - FIRE & EXPLOSIVE HAZARD

Flash Points (Method Used): N/A	Flammable Limits: N/A	Extinguishing Media: N/A
Special Fire Fighting Procedures: N/A	Unusual Fire & Explosive Hazard: None	

SECTION V - REACTIVITY DATA

Unstable: Stable: X	
Compatibility (Materials to Avoid): None Known	Hazardous Decomposition Products: None Known
Hazardous Polymerization: Will Not Occur	Conditions to Avoid: None Known

SECTION VI - HEALTH HAZARD DATA

Warning Label Text:Silica and Wood Dust Will Be Generated When Cutting Or Sanding And Can Be Harmful If Inhaled. Avoid Breathing Dust. Use Approved Respirator Supplied With HEPA Cartridges.

PRECAUTIONS:

1. Avoid breathing dust.
2. CertainTeed FiberCement does not release respirable dust in its manufactured state. Therefore, it does not present any known health hazards in such state. However, drilling, cutting, sanding, or otherwise abrading the products during installation or handling may generate respirable silica dust, including quartz in amounts that could pose significant health risks.
3. Use with adequate ventilation and dust collection systems to keep silica dust below permissible limits.
4. If at all possible, drilling, cutting, sanding or abrading should be performed outdoors. Dust created outdoors will dissipate quicker.

POTENTIAL HEALTH EFFECTS:

INHALATION: Concerning silica, no specific first aid is necessary since the adverse health effects associated with exposure to crystalline quartz result from chronic exposures. If there is a gross inhalation of silica, remove the person to fresh air, then seek medical attention. Concerning wood dust, it may cause lung, and upper respiratory tract infection. Some wood species may cause respiratory allergic effects. Reference Section IX for additional information.

SKIN CONTACT: Concerning silica, N/A - Concerning wood dust, may cause some skin irritation. Some wood species may cause dermatitis.

EYE CONTACT: Concerning silica, dust when cutting. First Aid: Clean with water - Concerning wood dust, may cause eye irritation.

INGESTION: N/A

SIGNS AND SYMPTOMS OF EXPOSURE:

There are generally no signs or symptoms of exposure to silica. The symptoms of chronic or ordinary silicosis, if present, are shortness of breath, wheezing, cough and sputum production. The symptoms of acute silicosis are the same; additionally, weight loss and fever are associated with acute silicosis. The symptoms of scleroderma including thickening and stiffness of the skin, particularly in the fingers, shortness of breath, difficulty swallowing, joint problems.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

The conditions of individuals with lung disease (e.g. Bronchitis, Emphysema, Chronic Obstructive Pulmonary Disease) can be aggravated. See Section IX for toxicological information, and for additional details of potential adverse health effects.

SECTION VII - SPILL, LEAK, AND CLEAN-UP PROCEDURES

In the event there is a dust build-up, special precautions should be taken to clean up in a way as to not stir up the dust, such as vacuuming or washing down with water.

SECTION VIII - SPECIAL PROTECTION INFORMATION

LOCAL EXHAUST: If cutting board inside, sufficient local exhaust should be used to reduce the level of respirable crystalline silica dust. See ACGIH "Industrial ventilation, A Recommended Practice" (Latest Edition).

RESPIRATOR PROTECTION: Use approved respirator supplied with HEPA cartridges when cutting.

OTHER PERSONAL PROTECTION: Wear goggles when cutting.

SECTION IX - TOXICOLOGICAL INFORMATION SILICOSIS

A major concern associated with exposure to respirable crystalline silica is SILICOSIS, caused by the inhalation and retention of respirable crystalline silica dust. Silicosis can exist in several forms, chronic or ordinary, accelerated or acute. CHRONIC OR ORDINARY SILICOSIS is the most common form, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either SIMPLE or COMPLICATED SILICOSIS. Simple silicosis is characterized by lung lesions, (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms or disability. Simple silicosis may be progressive and may develop into complicated silicosis or Progressive Massive Fibrosis (PMF). COMPLICATED SILICOSIS and PMF are characterized by lung lesions greater than 1 centimeter in diameter. The symptoms are shortness of breath, wheezing, cough and sputum production. Complicated silicosis and PMF can result in pulmonary heart disease. PMF may be disabling and may lead to death. ACCELERATED SILICOSIS can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and the progression is more rapid. ACUTE SILICOSIS can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

CANCER

IARC: (As pertains to respirable crystalline silica) The International Agency for Research on Cancer, in volume 42, published in 1987, concluded that there was sufficient evidence of the carcinogenicity of crystalline silica to experimental animals, but that there was limited evidence of the carcinogenicity of crystalline silica to humans. Group 2A.

IARC: (As pertains to respirable wood dust) The International Agency for Research on Cancer has classified wood dust as a known human carcinogen. This determination is based on evidence that prolonged exposure to and inhalation of wood dust increases the risk of nasal cancer. NTP: The National Toxicology Program, in its sixth annual report on carcinogens, concluded that "silica, crystalline (respirable)" may reasonably be anticipated to be a carcinogen, based on sufficient evidence in experimental animals and limited evidence in humans. The carcinogenicity of crystalline silica (quartz) is a matter of controversy. A number of studies support an association between silica and cancer. Some are based on work with experimental animals, and there are uncertainties in extrapolating animal data to humans. Also, it appears the positive animal studies are limited to single species, rats, and that studies using other rodent species have been negative. The results of the numerous epidemiological studies assessing the carcinogenicity of silica in humans are positive and negative. The limitations in the epidemiological studies result from: 1) inadequate silica exposure assessments; 2) possible confounding by exposure to other occupational carcinogens; 3) possible confounding from cigarette smoking. The issues regarding silica, silicosis and lung cancer are set forth in the following materials (among others): Current Pulmonology, Chapter 8, entitled "Occupational Lung Disease", Gee J. Bernard (1992). Occupational Lung Disorders, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994). Does Silica and Asbestos Cause Lung Cancer? Arch. Pathol. Lab. Med., Vol. 116, No. 1, pp. 16-19 (1992). Silica, Is It A Carcinogen? J. Occup. Health & Safety - Aust. NZ Vol. 6, No. 6, pp. 481-490 (1990). Silica and Lung Cancer: A Controversial Issue. Eur. Respir. J., Vol. 4, pp. 730-744 (1991).

SCLERODERMA

There is evidence that exposure to respirable crystalline silica or the disease silicosis is associated with the increased incidence of scleroderma, an immune system disorder manifested by a fibrosis (scarring) of the lungs, skin and other internal organs. The following may be consulted for additional information on silica, silicosis and scleroderma (also known as progressive systemic sclerosis): Occupational Lung Disorders, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994). Silica, Silicosis and Progressive System Sclerosis, British Journal of Industrial Medicine, Volume 42, Number 12, pp. 838-843 (1985). Diseases Associated with Exposure to Silica and Nonfibrous Silicate Minerals, Arch. Pathol. Lab. Med., Volume 112, Number 7, pp. 673-720 (1988).

TUBERCULOSIS

Individuals with silicosis are predisposed to develop tuberculosis. The following may be consulted for further information: Occupational Lung Disorders, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994).

NEPHROTOXICITY

There are several recent studies suggesting exposure to respirable crystalline silica or the disease silicosis is associated with the increased incidence of kidney lesions. The following may be consulted for additional information on silica, silicosis and nephrotoxicity: Occupational Lung Disorders, Third Edition, Chapter 12, entitled "Silicosis and Related Diseases", Parkes, W. Raymond (1994). A Study of Silica Nephrotoxicity In Exposed Silicotic and Non-Silicotic Workers, British Journal of Industrial Medicine, Vol. 49, No. 1, pp. 35-37 (1992). Further Evidence Of Human Silica Nephrotoxicity In Occupationally Exposed Workers, British Journal of Industrial Medicine, Vol. 50, Number 10, pp. 907-912 (1993).

Specification Sheet

General Description: WeatherBoards™ FiberCement Siding is available in different products providing both traditional and contemporary aesthetics. It is suitable for residential and light commercial applications. These products offer a high degree of dimensional stability and impact resistance.

<u>Shapes</u>	<u>Lap</u>	<u>Vertical</u>	<u>Soffit</u>
Perfection Shingles	Textured Dutchlap	Stucco	Smooth Non-ventilated
Random Square Straight Edge	Textured Beaded Lap	Smooth	Cedar Non-ventilated
Random Square Staggered Edge	Smooth Beaded Lap	Cedar/no groove	Smooth Ventilated
Half-Rounds	Smooth Lap	Cedar/8" groove	Cedar Ventilated
Octagons	Cedar Lap		

Finishes: CertainTeed's exclusive FiberTect™ Sealing System, ready for field top coating with high-quality, acrylic latex paint or stains. Factory Prefinishing available with paint or stain.

Surface Patterns: Smooth, redwood grain, cedar-textured grain, stucco texture, vertical grain

Sizes: Shapes – 8 ¼" x 12' (209mm x 3657mm), 16" x 48" (406mm x 1219mm)
 Lap Siding – 5 ¼" (133mm), 6 ¼" (162mm), 7 ¼" (185mm), 7 ½" (191mm), 8 ¼" (209mm), 9 ¼" (237mm), 12" (305mm), x 12' (3657mm) length
 Vertical – 4'x8' (1219mm x 2438mm), 4'x9' (1219mm x 2743mm), 4'x10' (1219mm x 3048mm)
 Soffit Non-ventilated – 12" (305mm), 16" (406mm), 24" (610mm) x 12' (3657mm) length
 Soffit Ventilated – 12" (305mm), 16" (406mm), 24" (610mm) x 12' (3657mm) length

Thickness: All siding and non-ventilated soffit is 5/16" thick. Ventilated soffit is ¼" thick. Net free air of ventilated soffit = 6 in²/LF

Composition: The products are manufactured using a multi-step high-pressure process combining portland cement, sand, wood fiber and specialty additives. Wood grains and other architectural features are pressed into the surface.

Technical Data: CertainTeed WeatherBoards™ FiberCement siding was tested in accordance with the American Society for Testing & Materials (ASTM) standards of the following specifications:

ASTM C1185-96	Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards
ASTM E72-95	Conducting Strength Tests of Panels for Building Construction
ASTM E84	Surface Burning Characteristics of Building Materials
ASTM E119-95a	Fire Tests of Building Construction and Materials
ASTM E136	Non-Combustible
ASTM E330-96	Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference
ASTM G26-95	Operating Light-Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials

Approvals: International Conference of Building Code Officials ER-5735
 National Evaluation Service, Inc., report no. NER-537
 Texas Dept. of Insurance Product Evaluation EC-16

Weather and Other Considerations: Product offers resistance to freeze/thaw cycles and is highly dimensionally stable. It is resistant to damaging ultraviolet (UV) rays and salt spray. It is immune to wood-boring insects. Product can resist high wind forces when installed in accordance with CertainTeed application instructions; see instructions for details.

Fire Resistance Characteristics: CertainTeed WeatherBoards™ FiberCement siding products have a Class 1(A) Fire Rating, Flame Spread - 0, Smoke developed - 5, per ASTM E84.

Installation: Preparatory Work – CertainTeed WeatherBoards™ FiberCement siding products are cut and installed like conventional wood siding. Handle and store product according to CertainTeed recommendations. WeatherBoards™ FiberCement Siding may be applied over sheathed walls or directly to studs spaced up to 24" (610mm) o.c. where local codes permit. When applying direct to wood or metal studs, a continuous weather resistant barrier, not a vapor retarder, must be applied. A vapor barrier, permeability of 1 perm (57.5 ng/(Pa·s·m²) or less, should be used in the wall when required and as described in the ASHRAE design manual. Consult a qualified mechanical engineer or other design professional.

Note – CertainTeed WeatherBoards™ FiberCement siding must be installed with the textured or smooth finished exterior surface facing out.

Methods – Complete installation recommendations are available from the manufacturer. Pneumatic nailing is recommended for attachment to wood framing. Use double hot-dipped galvanized or stainless steel nails. Do not use staples. For steel framing application use corrosion resistant bugle head screws. Vertical joints on Prefinished or FiberTect™-Sealed lap siding should be moderately butted. Unfinished or unsealed joints must be gapped 1/8" maximum and caulked. Follow caulk manufacturer's application instructions. Use drip cap flashing above all openings.

Precautions – Avoid breathing dust created by drilling, cutting, sawing, sanding or otherwise abrading the material. Use with adequate ventilation and a dust collection system; see MSDS for additional dust precautions. Use of plastic foam insulation may call for special installation attention. FiberTect™-Sealed siding must be painted within 24 months of application.

Building Codes – Current data on building code requirements and product compliance may be obtained from CertainTeed. Installation must comply with the requirements of all applicable local, state and national code jurisdictions.

Warranty: CertainTeed offers a prorated warranty to the original purchaser and the first transferee for a period of 50 years from the date of purchase. The warranty includes SureStart™ Protection for the original purchaser only for a period of 2 years following the date of installation. Under SureStart, CertainTeed, at no charge, will pay to repair or replace any WeatherBoards FiberCement Siding proven to be defective during the 2-year SureStart period. CertainTeed warrants that the product will be free from manufacturing defects and will not crack, rot or delaminate and will not suffer damage from termites when stored, installed and maintained according to CertainTeed printed instructions. CertainTeed offers a separate coatings warranty. See warranties for details and limitations.

Technical Services: CertainTeed maintains an Architectural Services staff to assist building professionals with questions regarding CertainTeed siding products. Call (800) 233-8990 for samples and answers to technical or installation questions.



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