

CertainTeed
*Weather*Boards™
FiberCement Siding

Contractor Guide

CertainTeed 
Quality made certain. Satisfaction guaranteed.™

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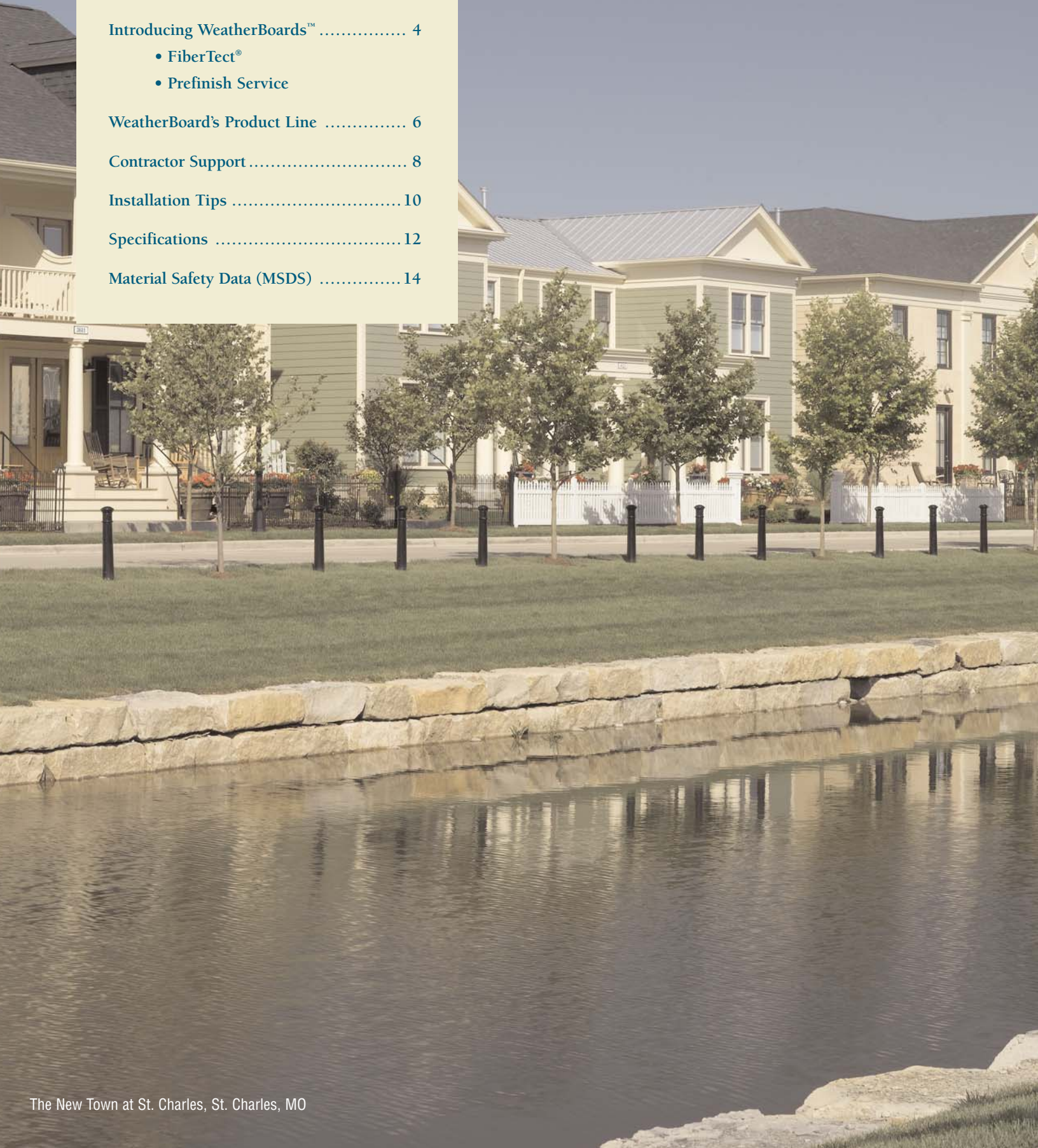
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CertainTeed WeatherBoards FiberCement Siding

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 21 million squares by 2010
- 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 annual sales over \$2.5 billion
- 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 through www.certainteed.com



* See actual warranty for details and conditions

CertainTeed WeatherBoards FiberCement Siding Works Better

OUR BEAUTY IS MORE THAN SKIN DEEP

AUTHENTIC DESIGN THAT LOOKS GREAT

CertainTeed WeatherBoards FiberCement Siding features realistic textures, giving it the handsome appearance of wood without the upkeep.

- Deeper, more genuine wood grain
- Complete system of siding, decorative shapes, soffit and trim
- Variety of textures, profiles and colors to match any design style

SUPERIOR TECHNOLOGY THAT PERFORMS

Time-tested methods come together to create the strongest, most durable fiber cement siding in the industry.

- Higher interlaminar bond strength means superior freeze/thaw protection
- **FIBERTECT®** Sealant/Primer protects against damaging moisture as much as 85% better than competitive primers
- Resists everyday bumps and harmful impacts
- **50-YEAR LIMITED TRANSFERABLE WARRANTY***

* See actual warranty for details and conditions

HIGHEST APPEAL AND HIGHEST QUALITY

Fiber cement siding continually earns recognition for the highest appeal and performance. It consistently outperforms wood and other siding.

- Dependable quality and dimensional stability
- Class 1(A) Fire Rating
- Impervious to wood-boring insects
- Resists damaging effects of salt spray and UV rays
- Will not rot



Your homes deserve the great looks and long-lasting durability of CertainTeed WeatherBoards. Wrap them up in style, warmth and the protection that is truly CertainTeed.

PROPRIETARY PATENTED FORMULA

- Environmentally friendly design using a recycled material
- Lighter weight, lower density boards for easier handling and installation
- Compatible with a wide variety of trim boards



Product contains more than 30% post industrial recycled material

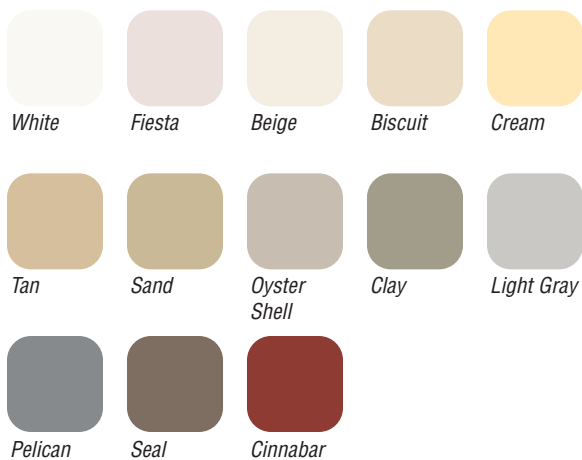


PREFINISHED COLOR THAT LASTS

The prefinish topcoat is a highly protective coating developed especially for CertainTeed WeatherBoards FiberCement Siding.

- Great selection of designer colors, covered by an outstanding coating warranty* of up to 25 years, depending on options selected
- Six beautiful stains, backed by a 12-year limited coating warranty*

CERTAINTEED PREFINISH COLORS



PREMIUM STAINS



* See paint manufacturer's warranties for details and conditions.

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

TOP TEN REASONS TO CHOOSE WEATHERBOARDS FIBERCEMENT SIDING, SHAPES AND TRIM

1. Best-looking grain on the market.
2. Proven highest durability.
3. Proprietary patented fly ash formula delivers environmentally friendly design using a recycled material.
4. Superior resistance to damaging moisture—no delamination ever.
5. FiberTect® Sealant—far more than a primer.
6. Longest paint “window” means greatest job site flexibility.
7. Prefinish Service offers beauty, convenience and savings.
8. Peace of mind with a solid warranty.
9. CertainTeed Building Solutions® Program for Remodelers provides you with multiple benefits: education classes, rewards incentives for the bundling of products, and business tools to help you generate more business.
10. 100 years of Building Products leadership.

CertainTeed WeatherBoards FiberCement Siding

SO MANY SIDING CHOICES

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 and full wall applications.



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



Random Square Straight Edge
12" x 48" (5" Exposure)
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.



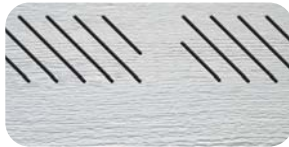
Smooth Soffit
12" x 12', 16" x 12', 24" x 12'



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



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



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

CERTAINEED COMPOSITE TRIM



Textured Side



Smooth Side

Installs like wood trim. Reversible, nominal 1" x 4" and 1" x 6" x 12'. FiberTect®-TR Sealed, Class 1(A) fire rating and 20-year limited warranty.*

CERTAINEED 7/16" FIBERCEMENT TRIM



Applies over trim substrate to match fiber cement siding. Five widths: 3-1/2", 5-1/2", 7-1/4", 9-1/4", 11-1/4" all 12' long. FiberTect® Sealed, Class 1(A) fire rating and 50-year limited warranty.*

* See actual warranties for details and conditions.

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 at www.certainteed.com/mastercraftsman.

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™ – 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.

Contractor 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 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 available too.

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 work. 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 (CD format) 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/certainteed/pro/contractor/siding/installation/fibercement.

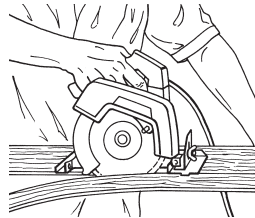
JOB SITE DELIVERY

Inspect the unit for breakage, foreign objects, surface defects, color consistency and correctness. **Do not install wet product. Installing wet siding may result in shrinkage at butt joints. Do not install questionable product!** If you find a siding defect, contact CertainTeed's Consumer Service Group immediately at 800-999-3654. If you elect to install questionable product and a manufacturing defect is not found to be the source of the problem, any claim may not be honored.



SAFETY

Work outdoors where feasible or use mechanical ventilation when possible. When operating power tools to saw, cut, drill or sand this product, wear a NIOSH-approved disposable dust mask or respirator equipped with an N, P or R cartridge and follow the manufacturer's instructions for use and care to the respirator.



STORAGE AND HANDLING

Keep fiber cement siding clean and store it under the bonnet provided. It must be stored on a smooth, flat surface, not directly on the ground. **Do not install wet siding.** If saturated, let the siding dry before installation simply by laying the boards onto a protected surface with the unfinished side facing the sun. Carry fiber cement siding on its edge rather than flat. When cutting large pieces, support it at the ends and near the cut.

CUTTING

Support the product along its length and near the cut. 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. Cut beaded profiles across the bead. Handle and install notched or narrow pieces carefully. The WeatherBoards 7-1/4" Diamond Blade is recommended.

FASTENERS

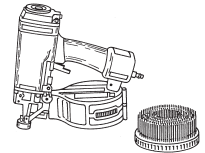
For applications through wood sheathing, use 6d (6 penny) nails. Over sheathing that is thicker than 1 inch, use 8d (8 penny) nails. This will enable the nails to penetrate the required 1-1/4 inch. Nails must be round head, non-corrosive and either double hot-dipped galvanized or stainless steel. If 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"

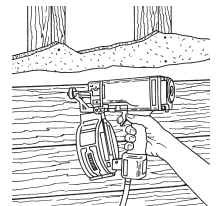


NAILERS

Pneumatic nailers work best. They speed installation and help ensure consistent penetration. A pneumatic nailer with a flush mount attachment (adjustable depth of drive) 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, typically 80-85 psi.

Recommended Pneumatic Nailers:

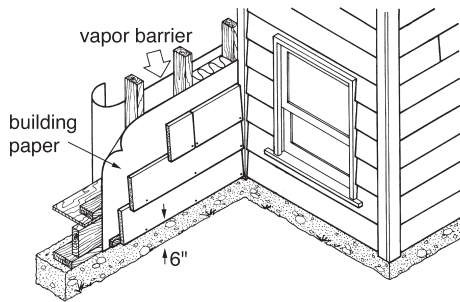
- Hitachi Coil Nailer (NV65AH)
- Senco Coil Nailer (SCN56)



PREPARATION

Always consult local and state 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. Please refer to ICC-ESR-1668 for approved nailing schedule. Install fiber cement siding over plywood, OSB or comparable sheathing. Review and comply with all local building codes and regulations about the proper use of weather-resistant barriers, house wraps, vapor barriers, etc. 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 1" above the low point. Make sure that this point is high enough to ensure that the siding is installed at least 6" above the finished grade. 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.

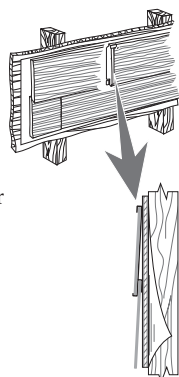
Install a starter strip. It should be fiber cement, pressure-treated wood or vinyl utility trim at least 1-1/2" wide and 1/4" thick. Position it so the bottom edge of the siding will project at least 1/8" below the bottom of the starter strip. Attach the siding using the starter strip as a guide. Install 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. All panels must be gapped 1/8" and caulked where they meet trim at corners, doors and windows. Factory-sealed or field-painted ends should be moderately butted and not caulked. Caulk the butt joints at all cut, unpainted ends.

USING OFF-STUD JOINERS

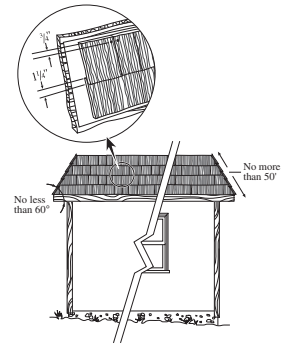
Insert the butt edge of the siding into the off-stud joiner. Center the edge of the siding in the joiner. Next, insert the edge of the next siding panel into the other side of the joiner. Fasten the siding to the wall. Do not fasten the off-stud joiner to the wall.



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.



TRIM

Trim accessories should be durable and water and weather resistant. CertainTeed offers two trim solutions: Composite Trim and a thin FiberCement Trim. Also, composite, cedar, spruce, pressure-treated lumber and vinyl trim have all been used successfully with fiber cement siding. Whatever trim you choose, you should test the trim for color compatibility with the siding before you install it. 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 the siding meets trim, leave a 1/8" gap and caulk with a high quality exterior grade caulk that meets ASTM standard C-920. Before you caulk, remove any fiber cement dust from the area with a brush. With non-corrosive materials, install flashing around all doors, windows, rake board, chimneys and other areas where needed. Drip cap flashing above all openings will help ensure a weather-tight installation.

PAINTING

All WeatherBoards Siding is FiberTect®-Sealed with CertainTeed's Sealing System. You have 24 months to apply a finish coat. 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. Oil-based paint or stain must not be used on fiber cement siding. CertainTeed WeatherBoards FiberCement Siding and Soffit must be allowed to breathe. Some factory-applied primer, paint or stain on the back is normal. Never completely prime, paint or stain the back side.

This booklet describes and illustrates the steps involved in installing fiber cement siding, soffit, and trim. Its purpose is to provide detailed information and how-to tips that will simplify the installation process. CertainTeed shall not accept any liability or responsibility under its written warranty for failure caused by application that does not meet our requirements for proper installation. These requirements are outlined throughout the WeatherBoards Installation Guide. Any deviations from these requirements should be addressed and approved in writing by CertainTeed Corporation.

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.

STYLES: <u>Shapes</u>	<u>Lap</u>	<u>Vertical</u>	<u>Soffit</u>	<u>Trim</u>
Perfection Shingles	Textured Dutchlap	Stucco	Smooth Non-Ventilated	Cedar
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 stain. Factory Prefinishing available with paint or stain. CertainTeed WeatherBoards™ FiberCement Siding must be allowed to breathe; therefore, it must never be primed, painted or stained on the back side.

SURFACE PATTERNS: Smooth, redwood grain, cedar-textured grain, stucco texture, vertical grain

SIZES: Shapes – 8 1/4" x 12' (210mm x 3657mm), 12" x 48" (305mm x 1219mm), 16" x 48" (406mm x 1219mm)
 Lap Siding – 5 1/4" (133mm), 6 1/4" (159mm), 7 1/4" (185mm), 7 1/2" (191mm), 8 1/4" (210mm), 9 1/4" (235mm), 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
 Trim – (7/16" thick) – 3 1/2" (89 mm), 5 1/2" (140mm), 7 1/4" (185 mm), 9 1/4" (235mm), 11 1/4" (286 mm) x 12' (3657 mm) length

THICKNESS: All siding is 5/16" thick. Non-ventilated and ventilated soffit is 1/4" thick. Net free air of ventilated soffit = 6 in²/LF

COMPOSITION: The products are manufactured using a multi-step, proprietary process combining Portland cement, fly ash, 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: ICC ESR-1668
 Texas Department of Insurance Product Evaluation EC-16

WEATHER AND OTHER CONSIDERATIONS: Product offers resistance to freeze/thaw cycles and is 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. **Do not install wet product. Installing wet product may result in shrinkage at butt joints.** 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.

The New Town at St. Charles, St. Charles, MO



MATERIAL SAFETY DATA

MSDS NUMBER: CT 10074-4

DATE PREPARED: MARCH 19, 2006

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product/Trade Name: WeatherBoards™ (FiberCement Siding)

Chemical Name: Mixture

CAS #: None Assigned

Common Name: Cellulose FiberCement, WeatherBoards, Shapes, Lap, Vertical, Soffit, Underlayment, Backerboard

Product Use: Building materials for building exteriors (siding or soffit) or underlayment

MANUFACTURER INFORMATION:

CertainTeed Corporation

P.O. Box 860

Valley Forge, PA 19482-0101

Main Telephone: 800-274-8530

Health, Safety & Environmental Affairs:

610-341-7000 (9 AM–5 PM Eastern)

EMERGENCY TELEPHONE: CHEMTREC (800) 424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

CAS #	Component	Percent
1344-95-2	Calcium Silicate (hydrate)	30-80
Not Available	Calcium Aluminum Silicates	0-40
1317-65-3	Limestone	0-30
65996-61-4	Pulp (cellulose)	5-10
Not Available	Iron Oxide Compounds	0-10
14808-60-7	Quartz	0-5
546-93-0	Magnesium Carbonate	0.5-0.6
60676-86-0	Silica, fused	0.4-0.5

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Quartz (14808-60-7).

Component Information/Information on

Non-Hazardous Components

This material is considered an “article” under 29 CFR 1910.1200 (Hazard Communication) and Canadian Controlled Product Regulations. The information in this MSDS is provided for situations where this article may be deformed creating dusts or fumes which may be potentially hazardous.

The actual weight percentage ranges for chemical components were used, rather than using the WHMIS- mandated ranges.

3. HAZARD IDENTIFICATION

Routes of Exposure: Inhalation, skin, and eye contact.

Potential Health Effects: Eyes

Dust or powder may irritate eye tissue. Rubbing may cause abrasion of cornea.

Potential Health Effects: Skin

Dust or powder may irritate the skin. Mechanical rubbing may increase skin irritation.

Potential Health Effects: Ingestion

Ingestion of this product is not likely to occur under normal conditions of use. If ingestion occurs, irritation of the gastrointestinal tract may occur.

Potential Health Effects: Inhalation

Acute Inhalation: Dust may cause temporary irritation of the nose, throat, and airways, resulting in coughing and/or sneezing. As with any dust, pre-existing upper respiratory and lung diseases or conditions may be aggravated. Actual lung injury from acute exposure is rare but possible. Symptoms of acute silicosis are similar to chronic silicosis (below) but may also include weight loss and fever.

Chronic Inhalation: Repeated or prolonged overexposures to dust containing crystalline silica may result in chest pain, difficulty breathing, lung damage and silicosis. Silicosis is the permanent deposition of silica in lung tissue which may result in lung damage. There may exist a relationship between silicosis and certain cancers.

Medical Conditions Aggravated by Exposure:

As with any dust, pre-existing upper respiratory and lung diseases or conditions may be aggravated.

HMIS Ratings: Health: 2* Fire: 0 Physical Hazard: 0

Hazard Scale: 0 = Minimal 3 = Serious

1 = Slight 4 = Severe

2 = Moderate * = Chronic hazard

4. FIRST AID MEASURES

First Aid: Eyes

Do not rub or scratch your eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water for 15 minutes. If irritation persists, contact a physician.

First Aid: Skin

Wash gently with soap and warm water to remove dust. Wash hands before eating or using the restroom. If irritation persists, seek medical attention.

First Aid: Ingestion

Due to the physical nature of this material, ingestion is unlikely to occur. If ingestion of a large amount does occur, seek medical attention.

First Aid: Inhalation

If inhaled, remove the affected person to fresh air. If shortness of breath or wheezing develops, seek medical attention.

5. FIRE FIGHTING MEASURES

General Fire Hazards

See Section 9 for Flammability Properties. This material will not burn.

Hazardous Combustion Products

Product is not considered combustible.

Extinguishing Media

Use methods suitable for the surrounding fire.

Fire Fighting Equipment/Instructions

Firefighters should wear appropriate protective clothing.

NFPA Ratings: Health: 2 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 3 = Serious
1 = Slight 4 = Severe
2 = Moderate

6. ACCIDENTAL RELEASE MEASURES

Containment Procedures

Pick up large pieces. Vacuum dusts using a high-efficiency particulate air (HEPA) filtered vacuum. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

Clean-Up Procedures

Avoid the generation of dusts during clean-up. Wear a dust mask if dust is generated above exposure limits. Wear appropriate protective equipment and clothing during clean-up. Pick up or scoop up material and put into a suitable container for disposal as a non-hazardous waste.

Evacuation Procedures

None expected.

Special Procedures

Wear a dust mask if dust is generated above exposure limits. Wear appropriate protective equipment and clothing during clean-up.

7. HANDLING AND STORAGE

Handling Procedures

Avoid breathing dusts from this material. Customary personal hygiene measures, such as washing hands after working with these products, are recommended.

Storage Procedures

Warehouse storage should be in accordance with package directions, if any.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Component Exposure Limits

Calcium silicate hydrate (1344-95-2)

ACGIH: 10 mg/m³ TWA (total dust)

OSHA: 15 mg/m³ TWA (total dust);

5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust);

5 mg/m³ TWA (respirable dust)

Limestone (1317-65-3)

ACGIH: 0.05 mg/m³ TWA (respirable fraction)

(related to Silica, crystalline, quartz)

OSHA: 15 mg/m³ TWA (total dust);

5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust);

5 mg/m³ TWA (respirable dust)

Quartz (14808-60-7)

ACGIH: 0.05 mg/m³ TWA (respirable fraction)

OSHA: Calculated based on % silica present

NIOSH: 0.05 mg/m³ TWA (respirable dust)

Magnesium carbonate (546-93-0)

ACGIH: 10 mg/m³ TWA

(particulate matter containing no asbestos
and < 1% crystalline silica)

OSHA: 15 mg/m³ TWA (total dust);

5 mg/m³ TWA (respirable fraction)

NIOSH: 10 mg/m³ TWA (total dust);

5 mg/m³ TWA (respirable dust)

Silica, fused (60676-86-0)

ACGIH: 0.1 mg/m³ TWA (respirable fraction)

OSHA: Calculated based on % silica present

NIOSH: 0.05 mg/m³ TWA (respirable dust)

Note: State-run OSHA programs may use

0.1 mg/m³ (respirable dust containing silica)

for the state-specific OSHA PEL.

Engineering Controls

Keep exposures to dust generated from cutting, drilling, routing, sawing or crushing, as low as possible. Whenever possible, perform machining of boards in a well-ventilated area (outside) and use local exhaust ventilation to keep exposures below the recommended exposure limits. Whenever possible, use wet saws or saw blades designed for fiber cement. The “score and snap” method or the use of pneumatic/electric shears are work practices which minimize dust exposure.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with side shields may be worn to reduce the risk of eye injury as a result of construction activities.

Personal Protective Equipment: Skin

Wear leather or other appropriate work gloves,

if necessary, for type of operation to prevent skin contact or irritation.

Personal Protective Equipment: Respiratory

Wear NIOSH-approved disposable respirator (dust mask) or air-purifying cartridge respirator fitted with N,P, or R series filters.

Personal Protective Equipment: General

Keep formation of airborne dusts to a minimum. Use good personal hygiene practices in handling this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid gray boards with varying dimensions according to product specifications. Some may be coated with an acrylic primer.

Odor: None

Physical State: Solid

pH: Not Applicable

Vapor Pressure: Not Applicable

Vapor Density: Not Applicable

Boiling Point: Not Applicable

Melting Point: Not Applicable

Solubility (H₂O): Not Applicable

Specific Gravity: Not Applicable

Flash Point: Not Applicable

Flash Point Method: Not Applicable

Lower Flammability Limit: Not Applicable

Upper Flammability Limit: Not Applicable

Auto Ignition Temperature: Not Applicable

Burning Rate: Not Applicable

10. CHEMICAL STABILITY AND REACTIVITY INFORMATION

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Avoid dispersion of dust in air.

Incompatibility

None identified.

Hazardous Decomposition

None identified.

Possibility of Hazardous Reactions

None.

11. TOXICOLOGICAL INFORMATION

Acute Dose Effects

General Product Information

This product is not toxic in its intact form. The dusts from this product are mechanical irritants and may cause transitory irritation to exposed areas such as eyes, skin, and upper respiratory passages.

Carcinogenicity

General Product Information

Components of the product have been identified as carcinogens by IARC, NIOSH, and ACGIH.

Component Carcinogenicity

Limestone (1317-65-3)

ACGIH: A2 - Suspected Human Carcinogen
(related to Silica, crystalline, quartz)

NIOSH: potential occupational carcinogen
(related to Silica, crystalline)

IARC: Monograph 68, 1997
(Listed under Crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources) (related to Silica, quartz) (Group 1 (carcinogenic to humans))

Quartz (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen

NIOSH: potential occupational carcinogen

IARC: Monograph 68, 1997 (Listed under Crystalline silica, inhaled in the form of quartz or cristobalite from occupational sources) (Group 1 (carcinogenic to humans))

Silica, fused (60676-86-0)

IARC: Monograph 68, 1997 (Listed under Amorphous silica) (Group 3 (not classifiable))

Mutagenicity

No information available for the product.

Teratogenicity

No information available for the product.

Developmental Effects

No information available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity

General Product Information

No information available for the product. The product is not biodegradable.

Component Analysis – Ecotoxicity –

Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate

No information available for the product.

13. WASTE DISPOSAL CONSIDERATIONS

US EPA Waste Number & Descriptions

General Product Information

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the EPA.

Component Waste Numbers

No EPA Listed Waste Numbers are being shown for this product's components.

Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. See Section 7 for Handling Procedures and Section 8 for Personal Protective Equipment recommendations.

14. TRANSPORTATION INFORMATION

US DOT Information

Shipping Name: This product is not classified a hazardous material for transport.

TDG Information

Shipping Name: Not classified as a Dangerous Good for transportation.

International Transportation Regulations

Not regulated.

15. REGULATORY INFORMATION

General Product Information

Components of this product have been checked against the non-confidential TSCA inventory by CAS Registry Number. Components not identified on this non-confidential inventory are either exempt from listing (i.e. polymers, hydrates) or are listed on the confidential inventory as declared by the supplier.

CERCLA

None of the components of this product are listed under CERCLA (40 CFR 302.4) and present in the material at an amount exceeding the Reportable Quantity (RQ).

State Regulations

General Product Information

Other state regulations may apply. Check individual state requirements.

Component Analysis: State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Limestone (related to Silica, Quartz)	1317-65-3	No	Yes	Yes	Yes	Yes	Yes
Quartz	14808-60-7	No	Yes	Yes	Yes	Yes	No
Magnesium carbonate	546-93-0	No	Yes	Yes	No	No	Yes
Silica, fused	60676-86-0	No	Yes	Yes	Yes	No	Yes

California Safe Drinking Water and Toxics Enforcement Act (Proposition 65)

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Canadian WHMIS Information

General Product Information

This product is not a Controlled Product according to the Canadian Hazardous Products Act.

Component Analysis—WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Limestone	1317-65-3	1% (related to Silica-crystalline, quartz)
Quartz	14808-60-7	1%

Additional Regulatory Information

General Product Information

No additional information available.

Component Analysis – Inventory

Component	CAS #	TSCA	DSL	EINECS
Limestone	1317-65-3	Yes	No	Yes
Cellulose pulp	65996-61-4	Yes	Yes	Yes
Quartz	14808-60-7	Yes	Yes	Yes
Magnesium carbonate	546-93-0	Yes	Yes	Yes
Silica, fused	60676-86-0	Yes	Yes	Yes

16. ADDITIONAL COMMENTS

Other Information

The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Disclaimer: Supplier gives no warranty of merchantability or of fitness for a particular purpose. Any product purchased is sold on the assumption the purchaser will make his own tests to determine the quality and suitability of the product. Supplier expressly disclaims any and all liability for incidental and/or consequential property damage arising out of the use of this product. No information provided shall be deemed to be a recommendation to use any product in conflict with any existing patent rights. Read the Material Safety Data Sheet before handling product.

Acronyms/definitions used in this MSDS

ACGIH	American Conference of Governmental Industrial Hygienists
CAS No	Chemical Abstracts Services Number
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
f/cc	Fibers per cubic centimeter
g/cm ³	Grams per cubic centimeter
HMIS	Hazardous Material Identification System
IARC	International Agency for Research on Cancer
LC50	Lethal concentration that produces death in 50% of the test population
LD50	Lethal dose required to produce death in 50% of the test population
LFL	Lower Flammable Limit
mg/m ³	Milligrams per cubic meter
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
ppm	Parts per million
PEL	Permissible Exposure Limit
PNOC	Particulates Not Otherwise Classified
REL	Recommended Exposure Limit
SARA	Superfund Amendments and Reauthorization Act
RCRA	Resource Conservation and Recovery Act
Title III	Emergency Planning and Community Right to Know Act; Section 302 - Extremely Hazardous Substances; Section 313 - Toxic Chemicals
TLV	Threshold Limit Value
TWA	Time Weighted Average
UFL	Upper Flammable Limit

MSDS History

MSDS Revision Summary

Date	MSDS No.	Comments
03/19/2006	CT 10074-4	Revised component percentages
09/27/2005	CT 10074-3	Revised for new formulation with Calcium Aluminum Silicates
6/14/02003	CT 10074-2	Adopted ANSI format, inserted WHMIS information, updated ACGIH TLV, IARC and NTP information and created French version for Canada.
2/24/98	CT 10074-1	Original

This is the end of MSDS # CT 10074-4

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