

James Hardie Building Products Ltd



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CPD Overview

James Hardie is the world's number one producer and marketer of high-performance fibre cement siding and backerboard and a market leader in Europe for fibre gypsum products. Our company culture is built on providing a foundation of "Zero Harm", creating a positive impact in communities, and delivering environmentally responsible innovative solutions to customers. Our durable, low maintenance and innovative products are made from natural and sustainable raw materials, delivering endless possibilities of design and aesthetics to consumers.

James Hardie created fibre cement and thanks to our extensive research and development we are now on our seventh generation of fibre cement technology. Fibre cement cladding is a durable, long-lasting and low-maintenance material that's used on residential houses and some commercial projects. It's a semi-rigid material that provides substantial protection, while still maintaining some flexibility. We are the world's leading manufacturer of high-performance fibre cement products, made from cement, reinforced with cellulose fibres. We are a trusted innovator and global industry leader, and our products enable endless possibilities for designing exceptional buildings whilst also delivering protection and long-lasting beauty. We offer A2 fire rated coloured facades through our Hardie® Plank, Hardie® VL Plank and Hardie® Panel products. Thanks to our strong investment in research and development for our ColourPlus™ Technology finishes we can offer an industry leading 15-year warranty.

Through our fermacell® brand, the product range also includes fermacell® gypsum fibre boards and fermacell® screed elements for high-quality drywall construction and timber construction. James Hardie Europe GmbH is thus able to offer complete wall systems for drywall and timber construction. The portfolio is rounded off by the cement-bonded, lightweight concrete panel Powerpanel® H2O with fabric reinforcement made of glass fibre for construction areas with high water stress or as an external render carrier.

Objectives

James Hardie is one of the world's leading manufacturers of building materials. Together with its European subsidiary, James Hardie Europe GmbH, the Group intends to expand its European business with high-performance building boards for interior applications and facades and grow sustainably in the European market with the James Hardie and fermacell® brands. A broad product range offers the best opportunities for this. The market demands modern building materials that can be produced efficiently within a short time frame and without unnecessarily long drying times using easy-to-handle materials and time-saving processing techniques. With the James Hardie and fermacell® brands, James Hardie Europe has the right products and systems to meet market demands.

Philosophy

James Hardie is a company that is not satisfied with stagnation. Inspired by new and ever better technologies and motivated by our enthusiasm for innovation, we continuously expand and optimise our services to develop and offer even better products. Therefore we invest a lot in research and development, with a special focus on product quality and production efficiency, in order to develop durable and low-maintenance products. Architects, planners, builders and homeowners will find trend-setting solutions to realise their individual visions.

What is fibre cement?

Fibre cement is a versatile building material developed by James Hardie in the early 1980s. It is produced sustainably and with low energy consumption from high-quality Portland cement, sand and cellulose fibres.

Due to its special material properties, fibre cement is ideally suited as a material for exterior wall cladding. The special James Hardie fibre cement formulation protects against fire, moisture, mould and pests and offers high stability and weather resistance. Unlike wood or some vinyls, the building material does not shrink or swell. Even after years of use under the most extreme climatic conditions and environmental influences, it does not crack and is extremely easy to maintain. Thanks to our decades of research and development we are now on our seventh generation of fibre cement.

Hardie® Plank, Hardie® VL Plank and Hardie® Panel facade claddings are therefore particularly durable. They are supplied with a 15 year warranty. Thanks to their robust material properties, they are thinner and lighter than alternative building materials, but at the same time significantly stronger. This makes assembly quick and easy. On the construction site, there is less breakage during processing. Construction projects can be completed faster and with fewer complications.

In addition, there is great design freedom with attractive colours that are as beautiful as on the first day, even after many years. In addition, Hardie® Plank, Hardie® VL Plank and Hardie® Panel facade claddings meet the requirements of building material class A2-s1, d0 according to EN 13501-1 and are therefore non-combustible according to international classification.

ColourPlus™ Technology finishes

ColourPlus™ technology is a special surface treatment in which the paint is applied and baked in the factory in several coats. With this new technology, the paint was flexible enough to adapt to the contours of the board without losing adhesion. This allowed several smooth layers of paint to be applied in a controlled environment. This made the ink application particularly resistant and better protected against fading due to strong UV radiation. At the same time, this laid the foundation for the long life and durability of the ink coating, which can now withstand the harshest weather conditions. Pleasant side effect: The new technology sustainably reduces the maintenance effort: If the facade is soiled, it is not necessary to repaint it. If necessary, cleaning with water and a mild, solvent-free household cleaner is sufficient.

The exclusive paintwork is available in 21 colours. Thanks to ColourPlus™ technology finishes, they are better able to withstand the sun's harmful UV rays. They are up to 30% more light resistant than many other facade finishes and paints applied on site.

HardieZone™ Technology

The HardieZone™ technology is a climate-specific fibre cement technology. The process is based on the combination of individual climatic variables, with which the long-term performance of the exterior cladding can be adapted to the different climatic zones of the world. For example, the panels for the German and European markets are equipped with HZ5™ technology, which has been specially adapted to the European climate with its frost-thaw cycles, extreme seasonal temperature fluctuations and rain/sun changes in summer. In addition, it is highly resistant to algae and fungal attack.

fermacell®

fermacell® gypsum fibre boards are the ideal complement to the product portfolio of James Hardie. The first gypsum fibre board - and thus the first gypsum fibre board in Germany - rolled off the production line at the fermacell® plant in Münchehof near Goslar in the early 1970s. This laid the foundation for the success of the fermacell® brand. The high-quality, particularly stable finishing board has fundamentally changed the entire drywall construction industry and thus made the fermacell® brand big and strong. Today, fermacell® gypsum fibre boards and the water- and weather-resistant Powerpanel® H2O boards stand for fast and economical

Available CPD Material (13)



Fibre Gypsum: The Third Way

The presentation aims to give a broad and as detailed as possible overview of fibre gypsum as an alternative to concrete blockwork and plasterboard/drywall as an internal wall material.

The CPD focuses on the pros and cons of wall materials and compares performance criteria in the context of Modern methods of construction and the demands of carbon reduction and circular economy considerations. It covers the essentials on the nature of the material, how it is made and used as an internal walling material as part of an overview of wall construction technology and principles.

By the end of this CPD delegates ought to have:

1. An overview of a highly flexible, alternative material in MMC.
2. Improved understanding of Fibre Gypsum as a relevant and carbon reduction material and how it can be used effectively.
3. A thorough background in the nature and properties of Fibre Gypsum how it can be used to satisfy modern approaches to sustainable building whilst offering a fine, robust material.
4. An understanding of typical details and cases using fibre cement in construction.
5. Knowledge on how Fibre Gypsum meets legislative requirements and standards in health and safety, approved documents and standards and durability.

Material type: Seminar

RIBA Core Curriculum: **Design, construction and technology**

Knowledge level: General Awareness



Multiple formats

Creating Safe and Enduring Façade Systems

This CPD provides a review on fibre cement cladding and the utilisation of large format fibre cement panels as safe and enduring facade systems.

Material type: Online Learning, Seminar

RIBA Core Curriculum: **Design, construction and technology**
Legal, regulatory and statutory compliance

Knowledge level: General Awareness

Tradition in a Modern Form - Introducing Fibre Cement Plank Systems in Rainscreen Cladding Systems



The presentation aims to give a broad and as detailed as possible overview of fibre cement as a relevant facade materials in rainscreen cladding systems. The CPD has a particular focus on plank systems used primarily in low rise residential dwellings. This covers the essentials on the nature of the material, how it is made and used as a facade material as part of an overview of rainscreen construction technology, origins and principles.

The presentation establishes a context of the evolution of materials that offer traditional qualities whilst meeting the needs of modern construction, regulations and standards. Finally an overview of typical construction details and use cases.

This CPD aims to give delegates:

1. An overview of rainscreen cladding principles and evolution.
2. An understanding the nature of fibre cement as a material and its qualities/properties.
3. Knowledge on how materials evolve to meet modern construction needs, whilst retaining traditional character.
4. Information on how to detail facades using fibre cement as part of a rainscreen system.
5. An understanding of fibre cement performance in relation to legislation and standards.

by the end of this CPD delegates ought to:

1. Have an overview of the history of rainscreen cladding, its principles and construction.
2. Have an improved understanding of fibre cement as a relevant facade material and how it can be used effectively.
3. Have a thorough background in the nature and properties of fibre cement, how it can be used to satisfy MMC requirements and create texture and character.
4. Have an understanding of typical fibre cement plank construction details across a variety of conditions.
5. Know how fibre cement meets legislative requirements and standards in health and safety, fire and durability.

Material type:

Seminar

RIBA Core Curriculum:

Design, construction and technology

Knowledge level:

General Awareness



Multiple formats

NLU - Creating Safe and Enduring Facade Systems

This CPD provides a review on fibre cement cladding and the utilisation of large format fibre cement panels as safe and enduring facade systems.

Material type:

Online Learning, Seminar

RIBA Core Curriculum:

Design, construction and technology
Legal, regulatory and statutory compliance

Knowledge level:

General Awareness



Multiple formats

Beyond Block: Using gypsum fibreboard as a genuine replacement for blockwork

This CPD will cover the following topics:

- What is gypsum fibreboard?
- Using blockwork: an outdated construction method?
- What are the alternatives?
- Why use contemporary materials?

This CPD can be delivered to you live and remotely

Material type: Online Learning, Seminar

RIBA Core Curriculum: **Design, construction and technology**Knowledge level: General Awareness



Multiple formats

Dry Screed – Meeting Modern Day Flooring Needs

This CPD focuses on the evolution of modern day flooring needs, from traditional construction methods through to present day solutions, which meet multiple design requirements. It introduces gypsum fibreboard as a modern building material, detailing its benefits and application examples. By the end of the seminar you should have a greater understanding of:

- Changing demands of the modern floor
- Gypsum fibreboard as a flooring system
- Gypsum fibreboard in comparison with other flooring treatments
- Best practice installation

This CPD can be delivered to you live and remotely

Material type: Online Learning, Seminar

RIBA Core Curriculum: **Design, construction and technology**Knowledge level: General Awareness



Multiple formats

Evolution of Rainscreen Facade Cladding

This seminar looks at the development of rainscreen cladding systems, the design purpose and principles for rainscreen systems and the use of fibre cement. It will help you to understand the following topics:

- The evolution of rainscreen systems, historical examples and the birth of the modern facade solution
- The purpose and benefits of rainscreen systems
- Rainscreen systems available and their applications
- Design applications of fibre cement rainscreen solutions
- Technical information and best practice for installation with reference to case studies

This CPD can be delivered to you live and remotely

Material type: Online Learning, Seminar

RIBA Core Curriculum: **Design, construction and technology**Knowledge level: General Awareness



Multiple formats

Partitions for Education

This seminar covers the design of partitions for education buildings and performance requirements for different education activities. It will help you to understand the following topics:

- Specification requirements as set out in the Department for Education publication, Standard Specifications, Layouts and Dimensions: Partitions in Schools
- The structural performance of gypsum fibreboard partitions
- Durability and adaptability issues for partitions
- Capital and whole life cycle cost issues for partitions
- The benefits of gypsum fibreboard solutions for education projects

This CPD can be delivered to you live and remotely

Material type: Online Learning, Seminar

RIBA Core Curriculum: **Design, construction and technology**

Knowledge level: General Awareness



Multiple formats

Modern Construction Needs Modern Materials

This CPD seminar provides information on the use of gypsum fibre boards where the performance properties of solid blockwork is required with the speed and flexibility of conventional drywall construction. It offers an update on the latest drywall construction methods and materials and will help you to understand the following topics:

- How to use alternative products to design high performing internal and external partitions, ceiling and floors
- How to optimise designs for structural, fire, sound and impact performance
- Systems for sustainable design and how to achieve better BREEAM ratings
- The true maintenance costs of a building and how better building materials can reduce life costs
- How to improve building designs by using slimmer partitions and how to maximise performance without compromising quality

This CPD can be delivered to you live and remotely

Material type: Online Learning, Seminar

RIBA Core Curriculum: **Design, construction and technology**

Knowledge level: General Awareness



NLU-Fibre Cement Tile Backerboards - The Innovative Solution when Specifying Commercial and Residential Projects

This seminar covers the following:

- What is fibre cement
- Insight into the requirements of a tiling substrate
- Insight into traditional tiling substrates
- Insight into modern tiling substrates
- How fibre cement can be used as the perfect tiling solution

Material type: Seminar

RIBA Core Curriculum: **Design, construction and technology**

Knowledge level: General Awareness



NLU-Fibre Cement Cladding: Stylish & Innovative Design Solution

Fibre cement is a high performance, highly durable and low maintenance exterior cladding material. It outperforms many traditional cladding materials in areas such as resistance to rotting, warp/shrinkage and UV damage, low combustibility and longer service life.

This CPD seminar covers the following aspects, and provides advice and solutions on how to achieve successful natural stone specification by covering these aspects:

- Fibre cement technology
- Designs available with fibre cement cladding
- Characteristics of fibre cement exterior cladding
- Comparison with other cladding materials
- Key guidance on installation
- Technical support for specifications
- Case studies

Material type:	Seminar
RIBA Core Curriculum:	Design, construction and technology Sustainable architecture
Knowledge level:	General Awareness



NLU-Specifying Fibre Cement for Residential Flooring

Fibre cement is a low maintenance, non combustible product that won't rot, swell, shrink or crack and is weather resistant, robust, squeak free, and accepts any floor finish, making it an ideal replacement for traditional flooring substrates. In this seminar, HardieFloor explores and advises on the key issues relating to specifying fibre cement for flooring.

- Fibre Cement Structural flooring – description
- Best practice installation
- Specification considerations
- Comparison with other flooring
- Sustainability

Material type:	Seminar
RIBA Core Curriculum:	Design, construction and technology
Knowledge level:	General Awareness



NLU-Smart Flooring Specification: New Solutions for Residential Flooring

This CPD presentation outlines the composition, performance characteristics and structural application of fibre cement flooring, with a particular emphasis on sound insulation as outlined in Part E of the Building Regulations. It will help you to understand the following topics:

- Understand what fibre cement is and how it is made
- Understand the sustainability credentials of the product
- Understand the characteristics of fibre cement structural floors and laboratory testing of materials
- Understand what areas are suitable for fibre cement structural floors
- Understand issues of noise nuisance in housing and how flooring design contributes to acoustic insulation
- Understand how fibre cement flooring compares with other flooring bases and options for best use
- Understand best practice for installation

Material type:

Seminar

RIBA Core Curriculum:

Design, construction and technology

Knowledge level:

General Awareness

Classifications

Subject/Product Areas (CI/SfB)

Finishes

Wall finishes: external > Weatherboards, shiplap cladding

Floor finishes: jointless > Cement-based flooring

Wall finishes: external > Sandwich cladding

Roof finishes > Roof trims and accessories

General products

Rigid sheets, boards > Wood fibre boards etc

RIBA Core Curriculum areas

Design, construction and technology

Knowledge level: *General Awareness*

Legal, regulatory and statutory compliance

Knowledge level: *General Awareness*

Sustainable architecture

Knowledge level: *General Awareness*