



KØL

product+design guide

2024.01

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KØL High-Density Fiber Cement is a natural through-colored panel that highlights the raw beauty and matte texture of cement. Each panel has subtle variations in color and pigment which allow for slight differences in its tonality and texture.

Fiber cement is a composite material made up of cement, mineral fillers, cellulose and non-toxic fibres. These natural materials ensure KØL panels are environmentally friendly and long lasting.



COMPOSITION

Cement (45%)

Minerals / Sand (42%)

Cellulose (Organic Pulp) (10%)

Mineral Pigments (3%)

Water





KØL PURE WHITE

44 North Beacon, Boston, MA

ARCHITECT: Monte French Design CONTRACTOR: Haycon Inc. PHOTOGRAPHY: Frances Zera Photography

colors

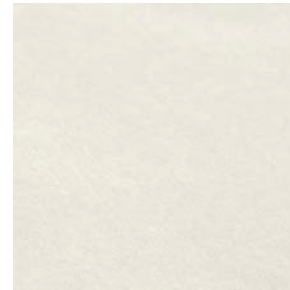
STOCKED



telegrey
7038



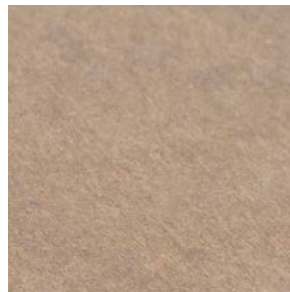
slate
7015



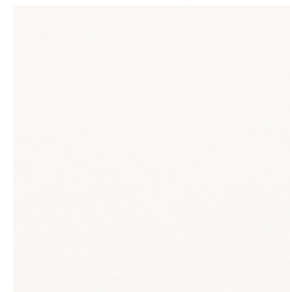
natural
9002



zinc
7037



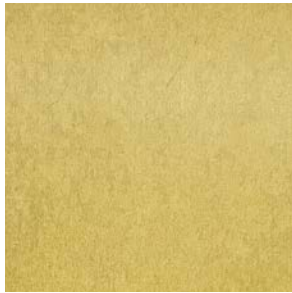
desert
1019



pure white
9010

* Standard size 8mm thick panels stocked in North America

MADE TO ORDER



wheat
1002



moss
6021



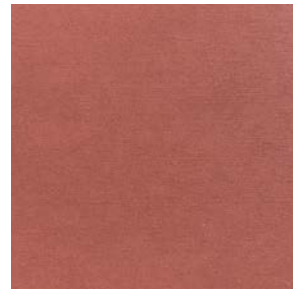
beach
1014



brick
8023



terra
8025



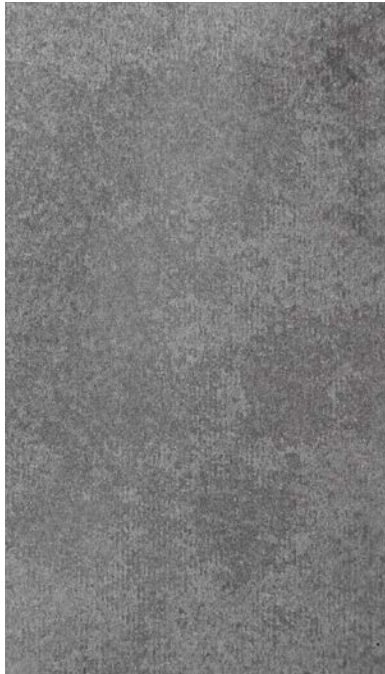
sandstone
3012

* Typical lead-time of 8-12 weeks



textures

KØL BLAST

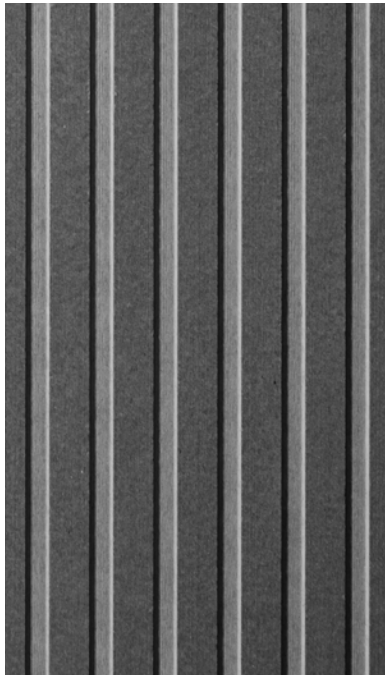


KØL BLAST has a sandblasted finish that creates a natural, raw-looking surface which highlights the soft tones of the product.

All textures are made to order. KØL Blast is available in 10 through-colored tones.



KØL RIGO

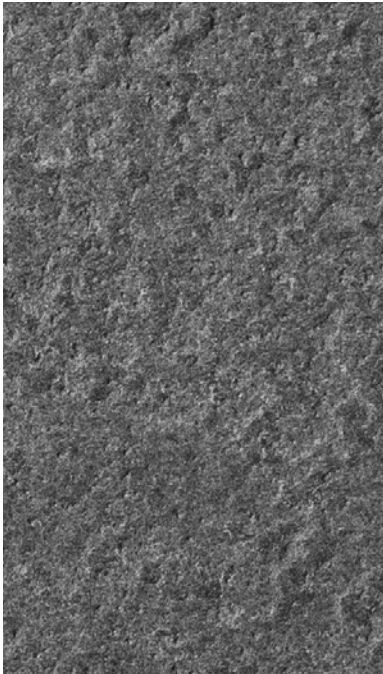


KØL RIGO has a linear grooved surface that offers a unique play on light and shadow. Slight surface and color variations give this panel personality which makes a bold statement.

All textures are made to order. KØL Rigo is available in 12 through-colored tones.

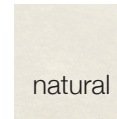


KØL SURFACE



KØL SURFACE is a rustic, irregular textured finish that creates an attractive stone look.

All textures are made to order. KØL Surface is available in 3 through-colored tones.



KØL GROOVE



KØL GROOVE has deep parallel lines that run the length of the panel and provide depth and character to the building design.

All textures are made to order. KØL Groove is available in 12 through-colored tones.

* refer to page 19



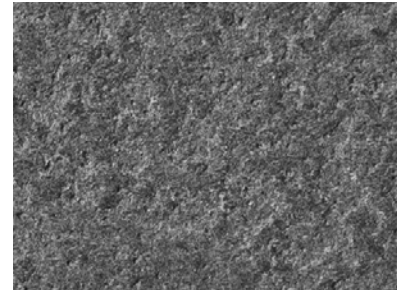
TEXTURES



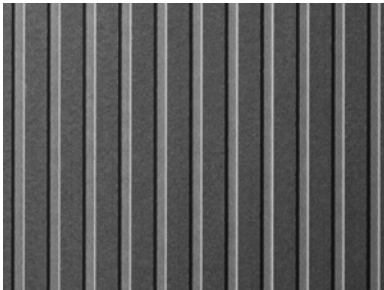
standard



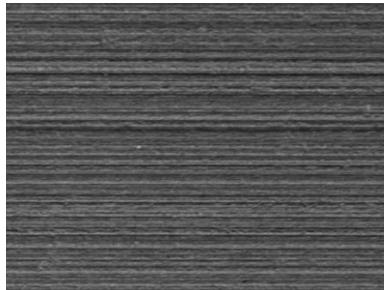
blast



surface



rigo



groove

durable

sustainable

energy efficient



KØL PURE WHITE

383 Herring Cove Road, Halifax, NS

ARCHITECT: TEAL Architects CONTRACTOR: Trunk 7 Contracting Ltd.

PHOTOGRAPHY: Acorn Art & Photography



KØL TELEGREY + KØL SLATE

200 Old Colony Road, Boston, MA

ARCHITECT: Embarc Design CONTRACTOR: Performance Building Co. PHOTOGRAPHY: Francis Zera Photography

design guide

DESIGN FLEXIBILITY

KØL High-Density Fiber Cement is offered in standard sizes and can also be ordered factory-cut to custom sizes to accommodate your project. Standard sizes are available and in stock in North America. They can be fabricated on the construction site with standard hand tools or in a shop with CNC equipment.

KØL panels are impressively easy to work with. Their machinability, range of colors, sizes and textures opens up a world of possibilities for customized designs and intricate detailing, allowing architects and builders to bring their creative visions to life.

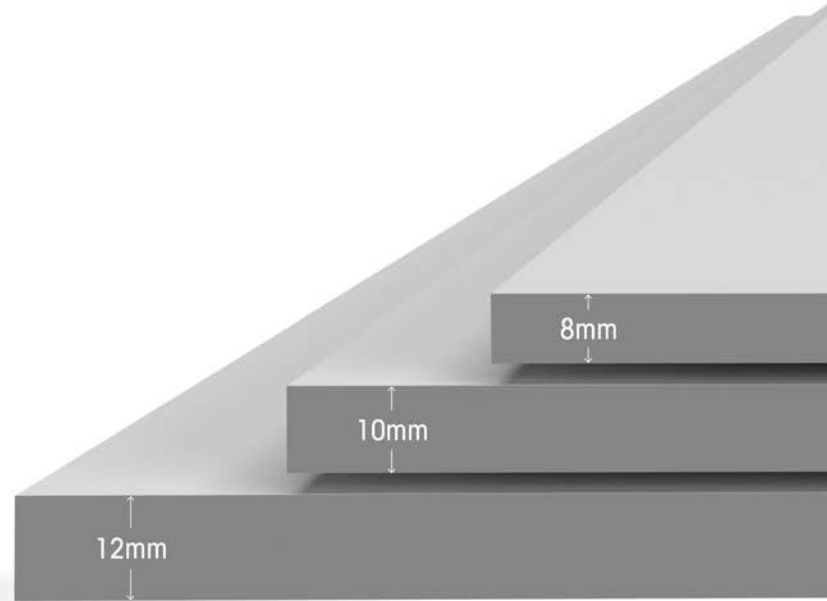
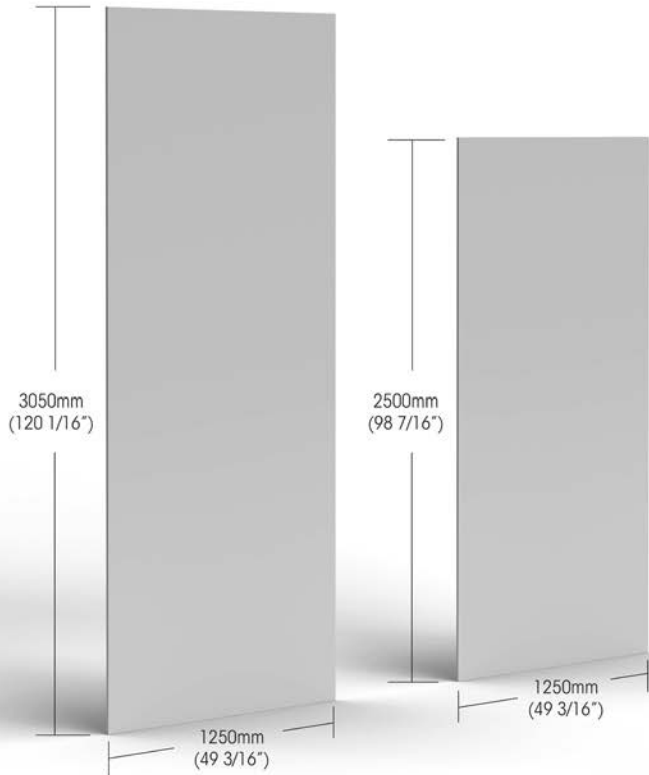


KØL SLATE

The Ranch, Cow Bay, NS

DESIGN: Workshop Design Co. CONTRACTOR: Streamline Construction PHOTOGRAPHY: Acorn Art & Photography

DIMENSIONS





KØL ZINC

Private Residence, Saskatoon, SK

ARCHITECT: Oxbow Architecture CONTRACTOR: On The Mark Homes



KØL NATURAL

580 South Water Street, Providence, RI

DESIGN: ZDS Architecture & Interiors PHOTOGRAPHY: Warren Jagger Photography

BENEFITS

KØL High-Density Fiber Cement panels offer a wealth of advantages that make them a standout choice in the architectural industry. KØL panels are perfectly suited for rainscreen cladding and ventilated facade systems.

KØL panels are a harmonious blend of strength and lightweight design. Their robustness does not come at the cost of added weight, making them easy to handle and install.

Once installed, KØL panels demand minimal upkeep. Their durability, resistance to environmental factors, and ease of cleaning make them a practical choice for those seeking low-maintenance solutions.

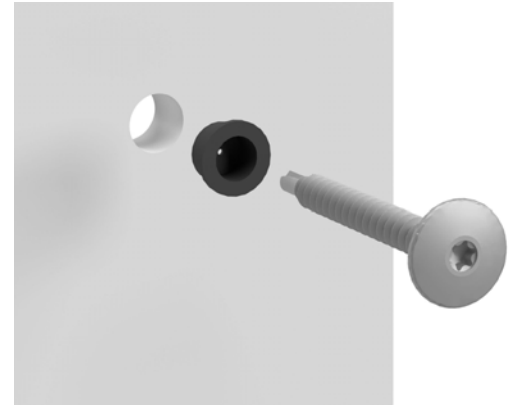
FASTENING

VISIBLE FASTENERS

KØL High-Density Fiber Cement panels can be fastened with stainless steel color-matched facade screws or stainless steel rivets. Holes are drilled in the panel, allowing for fasteners to be easily drilled through the panel and into the framing.

Visible fasteners provide an efficient means of securing the panels in place, ensuring durability and long-lasting performance.

This option is cost-effective and well-suited for projects where practicality and ease of installation are paramount.

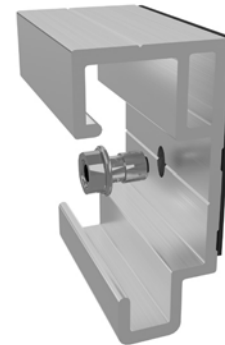


CONCEALED FASTENING

A concealed fastening system for KØL panels offers a modern and clean facade layout. Custom holes are drilled partway through the back of each panel and an anchor is inserted. A C-clip is secured into the anchor, allowing for easy installation into the concealed rail framing system.

While concealed fasteners may require slightly higher upfront costs due to the custom drilling and anchoring process, they often provide long-term cost savings by reducing maintenance and ensuring the longevity of the facade.

Concealed fasteners are available for 10mm and 12mm panels.





KØL PURE WHITE

Private Residence, Toronto, ON

DESIGN: Track Interiors CONTRACTOR: Mazenga Building Group Ltd. PHOTOGRAPHY: Ryan Kelly

technical data

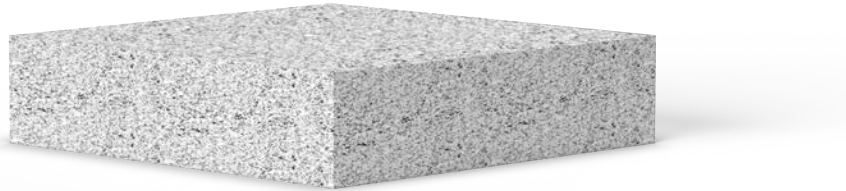
FIRE RESISTANCE

KØL High-Density Fiber Cement panels are non-combustible according to CAN/ULC S114-05, ASTM E84, ASTM E136 and NFPA 285.



HIGH-DENSITY

Fiber cement density is crucial because it directly affects the cladding's durability, resistance to impact, stability, fire resistance, insulation properties, maintenance requirements and design versatility. Builders, architects and building owners consider these factors when selecting fiber cement materials for architectural cladding to ensure the longevity and performance of the building's exterior.



KØL High-Density Fiber Cement panels are asbestos free, double-pressed and autoclaved flat boards. They are reinforced with mineralized cellulose fibers and through-colored, with smoothed surface and rectified edges.

KØL panels are CE marked according to EN 12467

TECHNICAL DATA SHEET

STANDARD DIMENSIONS & TOLERANCES	
Standard panel dimensions	1250mm x 2500mm (48 in x 96 in) 1250mm x 3050mm (48 in x 120 in)
Thickness	8mm, 10mm, 12mm
Nominal Weight	8mm: 14.4 kg/m ² 10mm: 18.0 kg/m ² 12mm: 21.6 kg/m ²
Tolerances on nominal dimensions (Classification according to EN 12467:2018)	Level 1
Length	± 2 mm
Width	± 1 mm
Straightness of edges	0.10%
Squareness of edges	2 mm/m
Thickness (smooth sheets)	± 0.5 mm
PHYSICAL PROPERTIES	
Density (dry)	≥1600 ±50 kg/m ³
MECHANICAL PROPERTIES	
E modulus of elasticity (dry)	Longitudinal 14 Gpa
	Transversal 10 Gpa
E modulus of elasticity (wet)	Longitudinal 10 Gpa
	Transversal 8 Gpa
Bending strength (wet)	≥ 18 Mpa
Resistance - According to EN 179-1:2010	Longitudinal 4.3 KJ/m ²
	Transversal 3.1 KJ/m ²

HYGROMETRICAL PROPERTIES	
Natural humidity	8 / 12%
Max water absorption (wet over dry)	≤ 25%
Moisture movement - Relative humidity change from 30% to 90%	Longitudinal 1.3 mm/m
	Transversal 1 mm/m
THERMAL AND WATER VAPOUR PROPERTIES	
Vapour resistance factor μ - According to EN 12572:2016	34
Thermal conductivity - According to EN 12664:2002	0.36 W/mK
Thermal expansion coefficient - According to EN 10545-8:2014	Longitudinal $1.71 \times 10^{-6} \text{ }^\circ\text{C}$
	Transversal $0.58 \times 10^{-6} \text{ }^\circ\text{C}$
OTHER PROPERTIES	
Superior caloric power	≤ 1.1 MJ/kg
Fire rating	CAN/ULC S114-05 ASTM E136 ASTM E84 - CLASS A EN 13501-1 A1
Freeze-thaw performance	RL ≥ 0.75
Durability classification (EN 12467:2018)	Category A
Strength classification (EN 12467:2018)	Class 4
CE marked product	EN 12467

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