

DUROCK® BRAND CEMENT BOARD WITH EDGE GUARD™



DESCRIPTION

USG Durock® Brand Cement Board with EdgeGuard™ offers architects, builders and tile contractors a strong, water-durable tile base for tub and shower areas. Also an ideal underlayment for tile on floors and countertops in new construction and remodeling. Board is readily applied over steel framing spaced 400 mm o.c. with corrosion-resistant steel screws or hot-dipped galvanized roofing nails. After joints are treated, wall or floor tile is applied using latex fortified mortar or Type I organic adhesive.

USG Durock® Brand Cement Board with EdgeGuard™ is preferred by many applicators as a base for directly applied finishes, tile, stone and thin brick used in building exteriors. The 12.7 mm and 15.9 mm panels are Underwriters Laboratories Inc. (UL) Classified for fire resistance, and may be used in any UL Design where Type DCB panels are listed.

LIMITATIONS

1. Designed for positive or negative uniform loads up to 60 psf.
2. Wall applications: Maximum stud spacing: 400 mm o.c. 600 mm o.c. for cavity shaft wall assembly. Framing shall be designed (based on stud properties alone) not to exceed L/360 deflection for tile and thin brick, L/240 for direct-applied exterior finish systems. Maximum fastener spacing: 200 mm o.c. for steel framing; 150 mm o.c. for ceiling applications.
3. Floor applications: Maximum joist spacing 600 mm o.c. The subfloor system should be designed with a minimum deflection limit of L/360 for the span. Some finish materials may require a more rigid subassembly (such as large format tile and natural stone products). In these cases, follow the manufacturer's minimum requirements. The subfloor should be APA Span-Rated Plywood or OSB with an Exposure 1 classification or better with tongue and groove or back blocked at the unsupported edges.
4. In exterior applications, USG Durock® Brand Cement Board with EdgeGuard™ should not be left uncovered for a period of time exceeding 90 days. Discoloration or staining may occur due to exposure to the elements which will not affect performance of the panel.
5. Brittle coatings, such as epoxy coatings, are not recommended for use with USG Durock® Brand Cement Board with EdgeGuard™. USG Durock® Brand Cement Board with EdgeGuard™ is intended for use with tile, thin brick and exterior stucco coatings only.
6. Maximum dead load for ceiling system is 7.5 psf.
7. Steel framing must be 20-gauge or heavier.
8. Do not use drywall screws or drywall nails, use Durock® screws. Do not use drywall joint tape, use Durock® joint tape.
9. Do not use 6.4 mm USG Durock® Brand Cement Board with EdgeGuard™ for wall or ceiling applications. 6.4 mm USG Durock® Cement Board with EdgeGuard™ is for use in interior applications only.
10. Do not use USG Durock® Brand Cement Board with EdgeGuard™ with vinyl flooring.
11. USG Durock® Brand Cement Board with EdgeGuard™ is not designed for use as a structural panel.
12. Maximum installed weight of the finish system should not exceed 15 psf.
13. USG Durock® Brand Cement Board with EdgeGuard panels should not be used in areas where they are exposed to temperatures that exceed 93°C.
14. In locations close to salt water or other challenging environments, design professionals should consider the use of stainless steel fasteners.
15. Do not use lightweight setting-type joint compounds or ready-mix joint compounds directly over USG Durock® Brand Cement Board with EdgeGuard™.

STANDARDS	USG Durock® Brand Cement Board with EdgeGuard™ exceeds ANSI standards for cementitious backer units (CBU). See ANSI A118.9 for test methods and specifications for CBU and ANSI A108.11 for interior installation of CBU. Exceeds industry standards as an exterior substrate for exterior finishes. Exceeds ASTM C1325 standards for no asbestos fiber mat reinforced cementitious backer units
COMPOSITION AND MATERIALS	USG Durock® Brand Cement Board with EdgeGuard™ is formed in a continuous process of aggregated Portland cement slurry with polymer coated, glass-fiber mesh completely encompassing edges, back and front surfaces. The edges are formed smooth with a patented poly- propylene fabric-wrapped edge. The ends are square cut.
INTERIOR APPLICATIONS	The building shall be enclosed and the HVAC system operating so that steel framing shall reach the moisture content it will reach in service. Do not install board when the board is wet.
EXTERIOR APPLICATIONS	In exterior applications, USG Durock® Brand Cement Board with EdgeGuard™ should not be left uncovered for a period of time exceeding 90 days. Discoloration or staining may occur due to exposure to the elements which will not affect performance of the panel. Finishes, leveling/skim coats and basecoats should not be applied to USG Durock® Brand Cement Board with EdgeGuard™ panel that is wet or frozen or that contains frost. After application, and for at least 24 hours, finishes, leveling/skim coats and basecoats should be effectively protected from rain and excessive moisture. In cold weather and during finish applications, USG Durock® Brand Cement Board with EdgeGuard™ panel, skim or basecoat, mortar, finish material and air temperature must be at least 5°C and must remain at this temperature or higher for at least 24 hours after application. Hot and dry weather may affect working time of leveling/skim or basecoat and finish materials. Under rapid drying conditions, dampening or light fogging of board, leveling/skim or basecoat surface may be required to improve workability.
PANEL MICROCRACKING	USG Durock® Brand Cement Board with EdgeGuard™ is formulated to develop fine microcracking (also called multiple cracking) in the panel. The microcracking process helps to evenly relieve the stored strain energy in the product due to handling and installation, external loads and/or panel restrained movement. The presence of microcracks in the panel should not be considered a product defect.
INSTALLATION	<ol style="list-style-type: none"> 1. Install cement board with ends and edges closely abutted, but not forced together. Stagger end joints in successive courses. 2. For flooring applications over a wood-based substrate, laminate USG Durock® Brand Cement Board with EdgeGuard™ to subfloor using Type 1 organic adhesive or latex-modified thin-set mortar suitable for bonding cement board. Fasten to subfloor with 32 mm USG Durock® Brand Tile Backer Screws for steel framing (or equivalent) or 38 mm hotdipped galvanized roofing nails spaced 200 mm o.c. in both directions with perimeter fasteners at least 10 mm and less than 16 mm from ends and edges. Drive nails and screws so that bottoms of heads are flush with panel surface to ensure firm panel contact with subfloor. Do not overdrive fasteners. Prefill joints with tile- setting mortar or adhesive and then immediately embed USG Durock® Brand Tile Backer Tape and level joints. 3. For wall application, fasten USG Durock® Brand Cement Board with EdgeGuard™ panels to framing with specified fasteners. Drive fasteners into field of panels first, working toward ends and edges. Hold panels in firm contact with framing while driving fasteners. Space fasteners maximum 200 mm o.c. for walls, 150 mm o.c. for ceilings, with perimeter fasteners at least 10 mm and less than 16mm from ends and edges. Drive nails and screws so bottoms of heads are flush with panel surface to ensure firm panel contact with framing. Do not overdrive fasteners. Approved fasteners include: USG Durock® Brand Tile Backer Screws for steel framing (or equivalent), 32 mm and 41 mm for 14- to 20-gauge steel framing; USG Durock® Brand Tile Backer Screws for steel framing (or equivalent), 32 mm, 41 mm and 57 mm for steel framing. Nails 38 mm hot-dipped galvanized roofing nails). Prefill joints with tile-setting mortar or adhesive and then immediately embed USG Durock® Brand Tile Backer Tape and level joints. 4. Cement board should be cut to size with a knife and straight edge. A power saw should be used only if it is equipped with a dust-collection device. Installer should wear NIOSH/MSHA approved dust mask.

FINISHING

For priming and decorating with paint, texture, or wallcovering, follow manufacturer's directions for materials used. All surfaces, including applied USG Middle East DUROCK® Basecoat or General Purpose Basecoat must be thoroughly dry, dust free, and not glossy. To improve fastener concealment, where gypsum panel walls and ceilings will be subjected to strong artificial or natural side lighting and/or decorated with a gloss paint (eggshell, semi gloss, or gloss), the gypsum panel surface should be skim-coated with USG Middle East DUROCK® Basecoat to equalize suction before painting.

STORAGE OF MATERIALS

All materials should be delivered and stored in their original unopened package and stored in an enclosed shelter providing protection from damage and exposure to the elements. Even though the stability and durability of USG Durock® Brand Cement Board with EdgeGuard™ is unaffected by the elements, moisture and temperature variations may have an effect on the bonding effectiveness of basecoats and adhesives. Store all USG Durock® Brand Cement Board with EdgeGuard™ panels flat.

TECHNICAL DATA

Description	Unit of Measure	ASTM Test Method	15.9mm USG Durock® Brand Cement Board with EdgeGuard™	12.7mm USG Durock® Brand Cement Board with EdgeGuard™	6.4mm USG Durock® Brand Cement Board with EdgeGuard™ Underlayment
Flexural strength	psi (MPa)	C947	>480	>750	>1000(6.9)
Indentation strength	psi (MPa)	D23394	>1250	>1250	>1250 (8.9)
Shear bond strength	psi	ANSI A118.4	>50	>50	>50
Nail-pull resistance	lb. 10 mm head dia mtr, wet or dry	C473	>90	>90	-
Weight	kg/m ²	C473	14.6	11.7	9.3
Freeze/thaw resistance	procedure B, number of cycles with no deterioration	C666	100	100	100
Mold resistance	-	G21 D3273	Rating 0, No growth 10/10	Rating 0, No growth 10/10	Rating 0, No growth 10/10
Noncombustibility	Pass/Fail	E136	Pass	Pass	Pass
Surface-burning characteristics	flame/smoke	E84	0/0	0/0	0/0
Thermal	"R"/k value	C518	0.49/1.27	0.39/1.27	-
Standard method for evaluating ceramic floor tile installation systems	Passes cycles 1-6	C627	Light commercial	Light commercial	Light commercial
Minimum bending radius	mm (requires special framing details available)	-	1800	1800	-

UNIFORM LOAD**12.7mm USG DUROCK® BRAND CEMENT BOARD WITH EDGEGUARD™**

Stud Spacing	Fastener Spacing	Design Wind Load (1/240)	Design Wind Load (1/360)
300 mm o.c.	200mm	45 psf	45 psf
	150 mm	60 psf	60 psf
400 mm o.c.	200mm	33 psf	30 psf
	150 mm	45 psf	30 psf
600 mm o.c (for shaftwall assemblies only)	200mm	13 psf	9 psf
	150 mm	12 psf	9 psf

Notice:

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