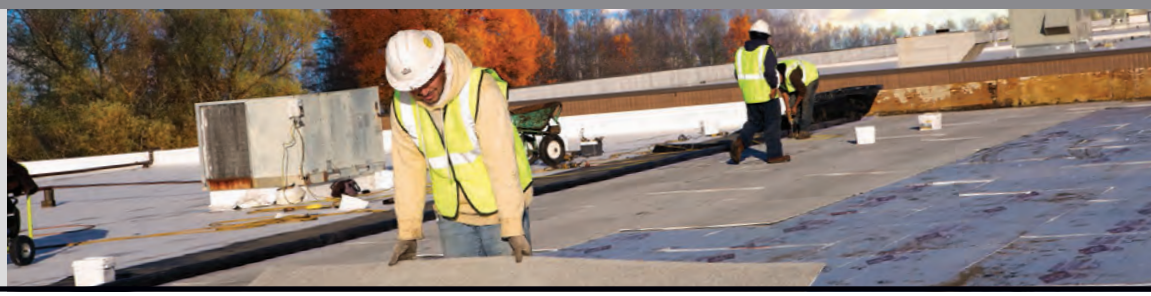
DEXcell™ BRAND Roof Board

DEXcell™ FA Glass Mat Roof Boards
DEXcell™ Glass Mat Roof Boards
DEXcell™ Cement Roof Boards

National Gypsum®

DEXcell™ BRAND Glass Mat Roof Board



Description

DEXcell™ BRAND Glass Mat Roof Board is a moisture and mold resistant gypsum board designed for use as a coverboard and/or thermal barrier in commercial roofing applications. DEXcell Glass Mat Roof Board is ideally suited for mechanically fastened roof systems.

DEXcell Glass Mat Roof Board is a fire barrier and thermal barrier manufactured with coated fiberglass facers and an enhanced moisture/mold resistant gypsum core. It is produced in 1/4", 1/2", and 5/8" thicknesses and 4' wide in 4' and 8' lengths. DEXcell Glass Mat Roof Board scores and cuts easily and is specially coated on the front, back and sides for easy handling.

Basic Uses

DEXcell Glass Mat Roof Boards are ideally suited for a wide variety of roofing systems including but not limited to modified bitumen, built up roofing, mechanically attached single ply membranes, fluid applied, metal, and spray foam.

Features/Benefits

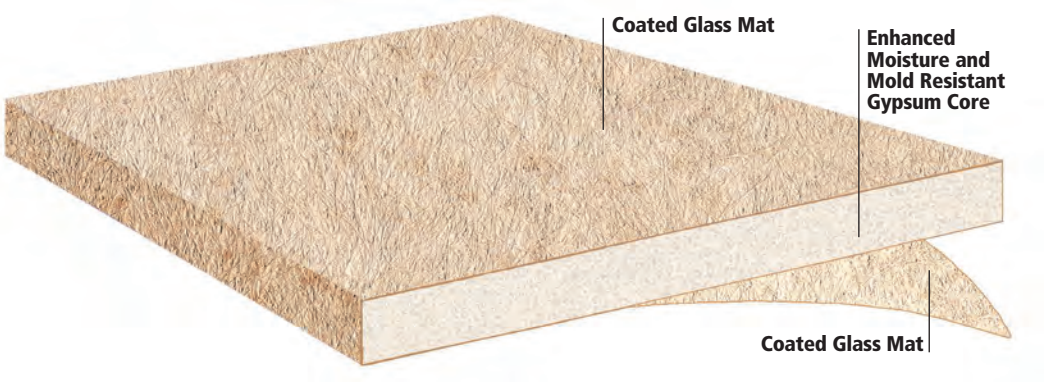
- Scores and snaps easily
- Fire barrier meets FM Class 1 and UL Class A fire ratings for roofing systems up to unlimited slope per UL 790.
- Moisture resistant and resists mold growth on the board per ASTM D 3273
- Coated fiberglass facers for improved handling and strength
- Manufactured to meet ASTM C 1177

Installation

Wind Uplift

DEXcell FA Glass Mat Roof Boards are included in numerous assemblies evaluated by FM or other independent laboratories for wind uplift performance. For information concerning such assemblies, visit **roofnav.com**.

Refer to roof system manufacturer's written instructions, local code requirements and Factory Mutual Global (FMG) and/or Underwriters Laboratories (UL) requirements for proper installation techniques.



- Use fasteners specified in accordance with system requirements. Install approved fasteners with plates into the DEXcell Glass Mat Roof Board, flush with the surface. Fasteners should be installed in strict compliance with the roof system manufacturer's installation recommendations and FMG Loss Prevention Data Sheet 1-29. Proper fastener spacing is essential to achieve wind-uplift performance.
- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of DEXcell Glass Mat Roof Board. In typical installations, butt board edges and ends loosely.
- See Physical Properties chart for maximum flute span when panels are applied directly over metal decking.

Technical Data

Fire Resistance

- UL 790 – DEXcell Glass Mat Roof Board meets UL Class A fire ratings for roofing systems up to unlimited slope per UL 790 (CAN/ULC-S107), see the *UL Certifications Directory* for more information.
- UL 1256 – DEXcell Glass Mat Roof Board is classified in roof deck constructions in accordance with ANSI/UL 1256, see the *UL Certifications Directory* for more information.
- 5/8" DEXcell Glass Mat Roof Board is UL Classified for use in numerous hourly rated UL assemblies including UL "P" roof assemblies. See the *UL Certifications Directory* for more information. Meets Type X per ASTM C 1177.
- When tested in accordance with ANSI/UL723 (ASTM E 84, CAN/ULC-S102), DEXcell Glass Mat Roof Board had a Flame Spread 0 and Smoke Developed 0.

FM Approved

- Complies with requirements of FM 4450 and FM 4470
- Meets FM Class 1

Fire resistance ratings represent the result of tests on assemblies made up of specific materials in specific configurations. When selecting construction designs to meet certain fire resistance requirements, caution must be used to ensure that each component of the assembly is the one specified in the test. Further, precaution should be taken that assembly procedures are in accordance with those of the tested assembly. (For copies of specific tests, call 1-800-NATIONAL®. For fire safety information, visit **nationalgypsum.com**).

PHYSICAL PROPERTIES

Thickness, nominal	**1/4" (6.4 mm)**	**1/2" (12.7 mm)**	**5/8" (15.9 mm)**
Width, standard	4' (1219 mm)	4' (1219 mm)	4' (1219 mm)
Length, standard	4', 8' (1219, 2438 mm)	4', 8' (1219, 2438 mm)	4', 8' (1219, 2438 mm)
Weight, nominal, lbs./sq. ft. (kg/m²)	1.2 (5.9)	2.0 (10)	2.5 (12)
Surfacing	Coated Fiberglass Facer	Coated Fiberglass Facer	Coated Fiberglass Facer
Flexural Strength[1], parallel, lbf. min. (N)	≥40 (178)	≥80 (356)	≥100 (445)
Flute Spanability[2]	2-5/8" (67 mm)	5" (127 mm)	8" (203 mm)
Permeance[3], Perms (ng/Pa.S.m²)	25 (1429)	24 (1371)	23 (1314)
Water Absorption[4], % max.	<10	<10	<10
Compressive Strength[5], psi Nominal	900	900	900
Flame Spread, Smoke Developed (ASTM E 84, UL 723, CAN/ULC-S102)	0/0	0/0	0/0
Fire Classification	UL Classified FM Approved	UL Classified FM Approved	UL Classified FM Approved
Bending Radius	4' (1219 mm)	6' (1829 mm)	8' (2438 mm)

1. Tested in accordance with ASTM C 473 method B
2. Tested in accordance with ASTM E 661
3. Tested in accordance with ASTM E 96 (Dry cup method)
4. Tested in accordance with ASTM C 1177
5. Tested in accordance with ASTM C 473

DEXcell™ BRAND FA Glass Mat Roof Board

Description

DEXcell™ BRAND FA Glass Mat Roof Board is a moisture and mold resistant gypsum board designed for use as a coverboard and/or thermal barrier in commercial roofing applications. DEXcell FA Glass Mat Roof Board is ideally suited for Fully Adhered roof systems.

DEXcell FA Glass Mat Roof Board is a fire barrier and thermal barrier manufactured with heavy duty coated fiberglass facers and an enhanced moisture/mold resistant gypsum core. It is produced in 1/4", 1/2", and 5/8" thicknesses and 4' wide in 4' and 8' lengths. DEXcell Glass Mat Roof Board scores and cuts easily and is specially coated on the front, back and sides for easy handling.

Basic Uses

DEXcell FA Glass Mat Roof Boards are ideally suited for a wide variety of roofing systems including but not limited to fully adhered single ply membranes, mechanically attached roof systems, modified bitumen, built up roofing, fluid applied, metal, and spray foam. Also used on the roof side of parapet walls.

Features/Benefits

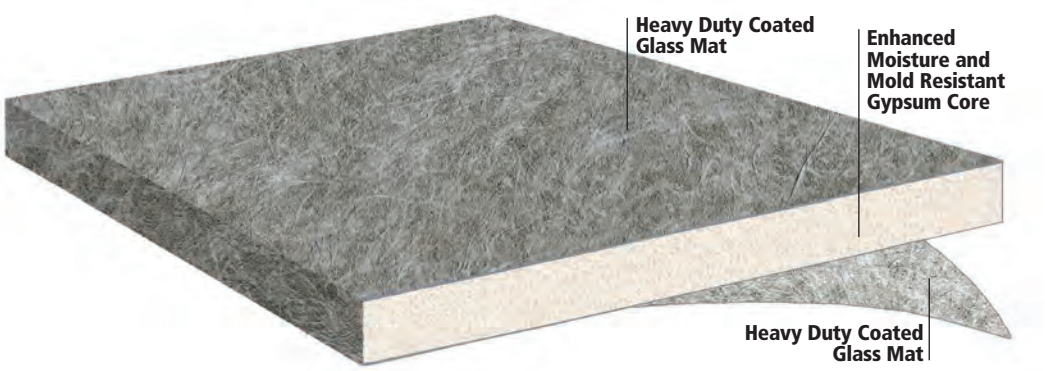
- Scores and snaps easily
- Fire barrier meets FM Class 1 and UL Class A fire ratings for roofing systems up to unlimited slope per UL 790.
- Moisture resistant and resists mold growth on the board per ASTM D 3273
- Heavy duty coated fiberglass facers for improved handling and strength
- Manufactured to meet ASTM C 1177

Installation

Wind Uplift

DEXcell FA Glass Mat Roof Boards are included in numerous assemblies evaluated by FM or other independent laboratories for wind uplift performance. For information concerning such assemblies, visit **roofnav.com**.

Refer to roof system manufacturer's written instructions, local code requirements and Factory Mutual Global (FMG) and/or Underwriters Laboratories (UL) requirements for proper installation techniques.



- Use fasteners specified in accordance with system requirements. Install approved fasteners with plates into the DEXcell FA Glass Mat Roof Board, flush with the surface. Fasteners should be installed in strict compliance with the roof system manufacturer's installation recommendations and FMG Loss Prevention Data Sheet 1-29. Proper fastener spacing is essential to achieve wind-uplift performance.
- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of DEXcell FA Glass Mat Roof Board. In typical installations, butt board edges and ends loosely.
- See Physical Properties chart for maximum flute span when panels are applied directly over metal decking.
- For vertical parapet applications, only 1/2" or 5/8" panels should be used. Maximum framing spacing is 24" o.c.

Technical Data

Fire Resistance

- UL 790 – DEXcell FA Glass Mat Roof Board meets UL Class A fire ratings for roofing systems up to unlimited slope per UL 790 (CAN/ULC-S107), see the *UL Certifications Directory* for more information.
- UL 1256 – DEXcell FA Glass Mat Roof Board is classified in roof deck constructions in accordance with ANSI/UL 1256, see the *UL Certifications Directory* for more information.
- 5/8" DEXcell FA Glass Mat Roof Board is UL Classified for use in numerous hourly rated UL assemblies including UL "P" roof assemblies. See the *UL Certifications Directory* for more information. Meets Type X per ASTM C 1177.
- When tested in accordance with ANSI/UL723 (ASTM E 84, CAN/ULC-S102), DEXcell FA Glass Mat Roof Board had a Flame Spread 0 and Smoke Developed 0.

FM Approved

- Complies with requirements of FM 4450 and FM 4470
- Meets FM Class 1

Fire resistance ratings represent the result of tests on assemblies made up of specific materials in specific configurations. When selecting construction designs to meet certain fire resistance requirements, caution must be used to ensure that each component of the assembly is the one specified in the test. Further, precaution should be taken that assembly procedures are in accordance with those of the tested assembly. (For copies of specific tests, call 1-800-NATIONAL®. For fire safety information, see **nationalgypsum.com**).

PHYSICAL PROPERTIES

Thickness, nominal	**1/4" (6.4 mm)**	**1/2" (12.7 mm)**	**5/8" (15.9 mm)**
Width, standard	4' (1219 mm)	4' (1219 mm)	4' (1219 mm)
Length, standard	4', 8' (1219, 2438 mm)	4', 8' (1219, 2438 mm)	4', 8' (1219, 2438 mm)
Weight, nominal, lbs./sq. ft. (kg/m^2)	1.2 (5.9)	2.0 (10)	2.5 (12)
Surfacing	Coated Fiberglass Facer	Coated Fiberglass Facer	Coated Fiberglass Facer
Flexural Strength[1], parallel, lbf. min. (N)	≥40 (178)	≥80 (356)	≥100 (445)
Flute Spanability[2]	2-5/8" (67 mm)	5" (127 mm)	8" (203 mm)
Permeance[3], Perms (ng/Pa.S.m^2)	25 (1429)	24 (1371)	23 (1314)
Water Absorption[4], % max.	<10	<10	<10
Compressive Strength[5], psi Nominal	900	900	900
Flame Spread, Smoke Developed (ASTM E 84, UL 723, CAN/ULC-S102)	0/0	0/0	0/0
Fire Classification	UL Classified FM Approved	UL Classified FM Approved	UL Classified FM Approved
Bending Radius	4' (1219 mm)	6' (1829 mm)	8' (2438 mm)

1. Tested in accordance with ASTM C 473 method B
2. Tested in accordance with ASTM E 661
3. Tested in accordance with ASTM E 96 (Dry cup method)
4. Tested in accordance with ASTM C 1177
5. Tested in accordance with ASTM C 473

DEXcell™ BRAND
Cement Roof Board

Description

DEXcell™ BRAND Cement Roof Board is a lightweight moisture and mold resistant cement board designed for use as a coverboard and/or thermal barrier in all commercial roofing applications.

DEXcell Cement Roof Board is a fire barrier and thermal barrier manufactured of Portland cement, lightweight aggregate and glass mesh that provides an exceptionally hard, durable surface that is able to withstand prolonged exposure to moisture.

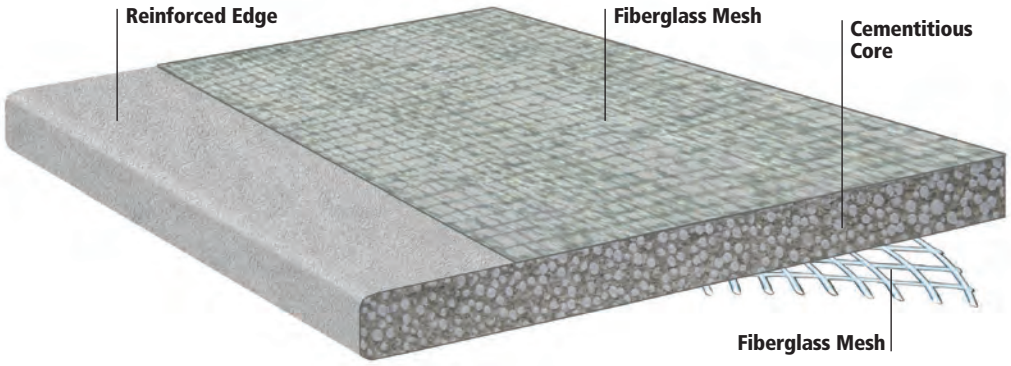
It is produced in 7/16" thickness and 4' wide in 4' and 8' lengths.

Basic Uses

DEXcell Cement Roof Boards are ideally suited for a wide variety of roofing systems including but not limited to fully-adhered single ply membrane, mechanically attached roof systems, modified bitumen, built up roofing, fluid applied, metal, and spray foam. Also used on the roof side of parapet walls.

Features/Benefits

- Ideally suited for all roof systems
- Fire barrier meets FM Class 1 and UL Class A fire ratings for roofing systems up to unlimited slope per UL 790.
- Lightweight cementitious core
- Superior moisture resistance
- Exceptional freeze/thaw resistance
- Excellent bond/pull-through/ uplift values
- Impact resistant, extremely durable and dimensionally stable
- High compressive strength
- Scores and snaps easily
- Moisture resistant and resists mold growth on the board per ASTM D 3273
- Manufactured to meet ASTM C 1325
- Recommended for green roofs and photovoltaic systems



Installation

DEXcell Cement Roof Board are included in numerous assemblies evaluated by FM or other independent laboratories for wind uplift performance. For information concerning such assemblies, visit **roofnav.com**.

Refer to roof system manufacturer's written instructions, local code requirements and Factory Mutual Global (FMG and/or Underwriters Laboratories (UL) requirements for proper installation techniques.

- Use fasteners specified in accordance with system requirements. Install approved fasteners with plates into the DEXcell Cement Roof Board, flush with the surface. Fasteners should be installed in strict compliance with the roof system manufacturer's installation recommendations and FMG Loss Prevention Data Sheet 1-29. Proper fastener spacing is essential to achieve wind-uplift performance.
- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths DEXcell Cement Roof Board. Butt board edges and ends loosely in typical installations.
- See Physical Properties chart for maximum flute span when panels are applied directly over metal decking.
- For vertical parapet applications, maximum framing spacing is 16" o.c.

Technical Data

Fire Resistance

- UL 790 – DEXcell Cement Roof Board meets UL Class A fire ratings for roofing systems up to unlimited slope per UL 790 (CAN/ULC-S107), see the *UL Certifications Directory* for more information.
- UL 1256 – DEXcell Cement Roof Board is classified in roof deck constructions in accordance with ANSI/UL 1256, see the *UL Certifications Directory* for more information.
- When tested in accordance with ANSI/UL723 (ASTM E 84, CAN/ULC-S102), DEXcell Cement Roof Board had a Flame Spread 0 and Smoke Developed 0.

FM Approved

- Complies with requirements of FM 4450 and FM 4470
- Meets FM Class 1

Fire resistance ratings represent the result of tests on assemblies made up of specific materials in specific configurations. When selecting construction designs to meet certain fire resistance requirements, caution must be used to ensure that each component of the assembly is the one specified in the test. Further, precaution should be taken that assembly procedures are in accordance with those of the tested assembly. (For copies of specific tests, call 1-800-NATIONAL®. For fire safety information, see **nationalgypsum.com**).

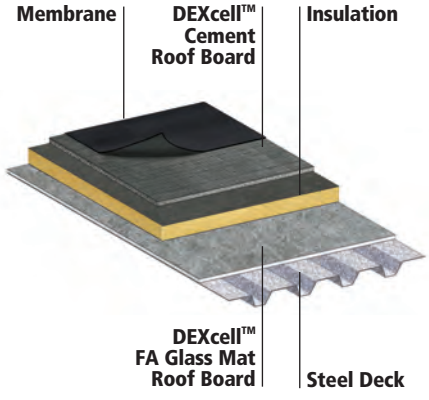
PHYSICAL PROPERTIES

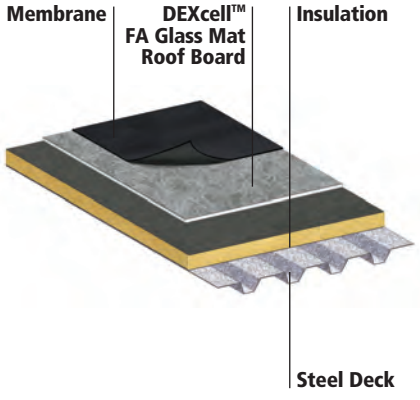
Thickness, nominal	**7/16" (11.1 mm)**
Width, standard	4' (1219 mm)
Length, standard	4', 8' (1219, 2438 mm)
Weight, nominal, lbs./sq. ft. (kg/m²)	2.1 (10.3)
Flexural Strength[1], psi	>1000
Flute Spanability[2]	12" (304 mm)
Permeance[3], Perms (ng/Pa.S.m²)	>10 (570)
R Value[4], ft² °F hr/BTU (m² K/W)	.28
Linear Variation with Change in Moisture[5]	≤0.07%
Water Absorption[6], % Max.	<10
Compressive Strength, psi Nominal	1250
Flame Spread, Smoke Developed (ASTM E 84)	0/0
Bending Radius	5' (1524 mm)

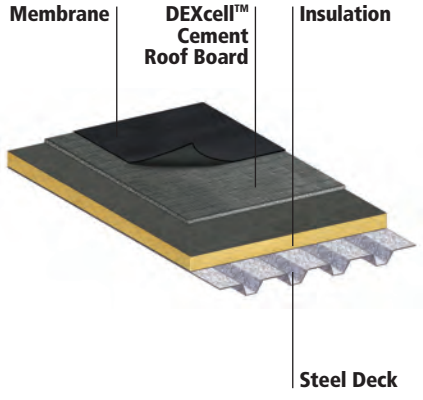
1. Tested in accordance with ASTM C 947
2. Tested in accordance with ASTM E 661
3. Tested in accordance with ASTM E 96 (Dry cup method)
4. Tested in accordance with ASTM C 518 (Heat flow meter)
5. Tested in accordance with ASTM C 1037
6. Tested in accordance with ASTM C 473

DEXcell™ BRAND Roof Board

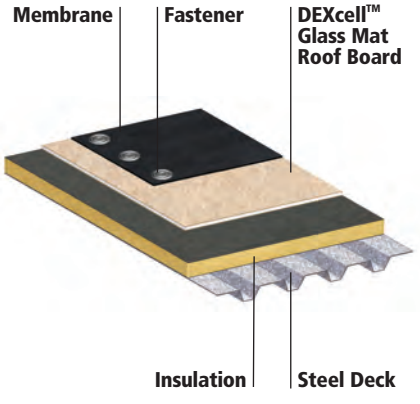
Fully Adhered

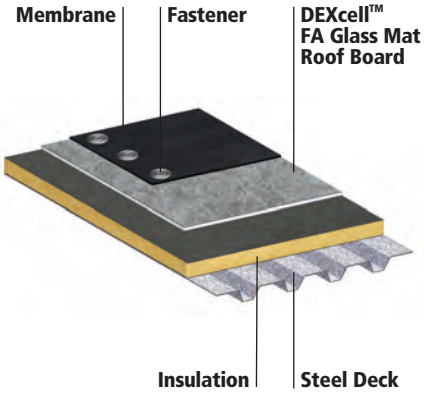


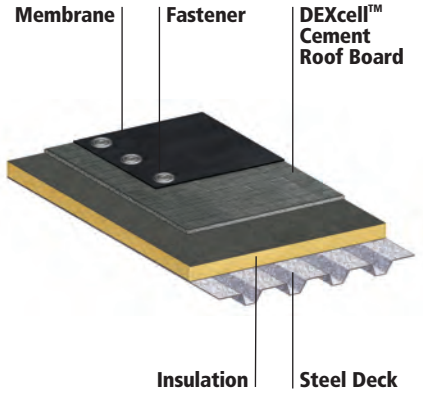




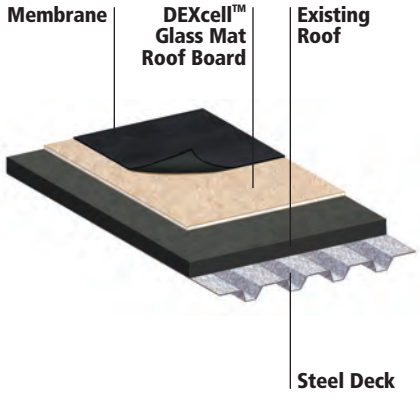
Mechanically Attached

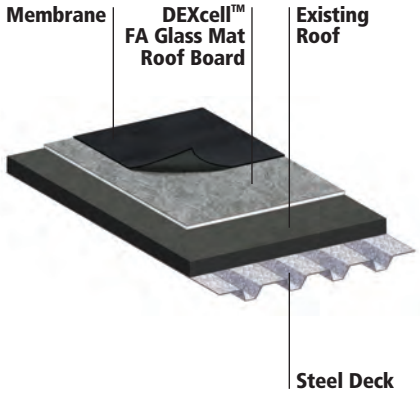


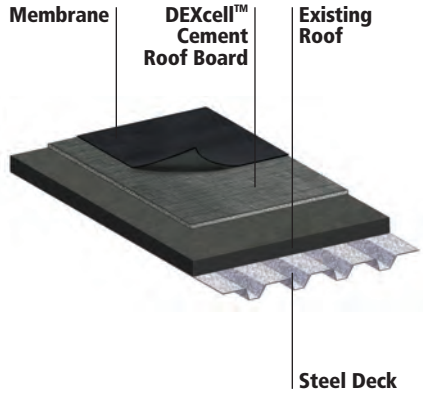




Reroof/Recover







DEXcell™ BRAND Roof Board

LIMITED WARRANTY

National Gypsum Company is pleased to offer a warranty lasting for two years after manufacture, to each purchaser of its DEXcell™ Brand Roofing Products and to the owner at the time of installation of any building upon which DEXcell is installed, that such products when shipped shall be free from defects in material and workmanship. This warranty is the only warranty applicable to DEXcell™ Brand Roofing Products. Except as may be prohibited by applicable law, this Limited Warranty is subject to certain limitations, conditions and exclusions, all of which will apply and may be viewed at nationalgypsum.com or otherwise obtained by calling 1-800-NATIONAL®.

Mold and Moisture Resistance

DEXcell Roof Boards were designed to provide extra protection against mold and mildew. When tested by an independent laboratory per ASTM D 3273 ("Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber"), DEXcell Roof Board achieved a score of 10, the best possible score for this test.

The use of DEXcell Roof Boards in actual installations may not achieve the same results as were achieved in controlled, laboratory conditions.

No material can be considered "mold proof," nor is it certain that any material will resist mold indefinitely. When used in conjunction with good design, handling and construction practices, DEXcell Roof Boards can provide increased mold resistance versus standard roofing products. As with any building material, avoiding water exposure during handling, storage and installation and after installation is complete, is the best way to avoid the formation of mold or mildew.

NATIONAL ROOFING CONTRACTORS ASSOCIATION MEMBER

SPRI SINGLE PLY ROOFING INDUSTRY

NATIONAL GYPSUM PRODUCTS MADE IN USA

FM APPROVED

Corporate Headquarters

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Web: nationalgypsum.com
dexcellroofboard.info

Technical Information

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(800) 329-6421

Customer Service

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National Gypsum®