

ProGUARD[®] DP

Insulated Concrete Board

 **Arriscraft**
Building Stone · Brick · Limestone

 **CLEAR**
CORPORATION

ProGUARD[®] DP
The Game-changing
Wall System



Arriscraft ARRIS-stack over ProGUARD®DP Insulated Cement Board Panels, using Laticrete MMS materials.

PROGUARD®DP INSULATED CONCRETE BOARD, manufactured by T. Clear Corp., is a unique next generation building product designed for both commercial and residential applications. It is a light-weight, durable, ready to finish insulated concrete board that attaches to structural studs or concrete walls. By putting the insulation on the outside of the assembly, heat transfer through the studs or concrete (structural/substrate materials) is greatly reduced and the thermal efficiency of the wall system significantly increased.

In addition, the concrete skin provides a durable, ready to finish surface that is installed along with the insulation. The panels are also furnished with drainage planes to allow moisture to migrate down the wall assembly to flashing lines. Significant labor savings results when the insulation, sheathing and drainage planes are installed in a single unified product.

T. Clear Corp. is a member of the United States Green Building Council. ProGUARD®DP may help your building qualify for LEED points. In addition, no external heat sources are used to cure the concrete skin. All curing is natural from the heat of hydration generated by the natural curing of the Portland cement.



ProGUARD® DP consists of a nominal 1/4" thick Util-A-Crete® concrete backerboard that is reinforced with two layers of fiberglass mesh. The Util-A-Crete® fiberglass reinforced concrete surface of ProGUARD® DP has a compressive strength of 2600 psi providing a hard durable surface that is resistant to impact. This concrete panel is laminated to extruded polystyrene, expanded polystyrene or mineral wool insulation in standard thicknesses.

A 3/4" ship lapped edge is created on all four sides of the panel. This edge detail greatly reduces heat transfer, moisture, and air leaks through the panel joints when installed on the wall structure. The tough concrete surface is weather resistant and serves as a durable base for thin adhered masonry, trowel or spray applied acrylic exterior finishes, siding or other finish materials.

ProGUARD® DP Insulated Concrete Board Product Specs

INSULATION (EPS)	Expanded Polystyrene
Nominal Density	2.0 lbs. per cu. ft.
Compressive Strength	25 lbs. psi
R-Value per in. (75° mean temp)	4.35
Water Absorption	2.0% by volume max
Water Vapor Permeance	<.6 perms
Flame Spread	<25
Smoke Developed	<450
FACING	Util-A-Crete® Concrete Backer Board
Thickness	1/4"
Compressive Strength	2600 lbs. per sq.in.
Flame Spread	5
Smoke Developed	0

INSULATION (XPS)	Extruded Polystyrene
Nominal Density	1.55 lbs. per cu. ft.
Compressive Strength	25 lbs. psi
R-Value per in. (75° mean temp)	5
Water Absorption	0.3% by volume max
Water Vapor Permeance	<.6 perms
Flame Spread	<5
Smoke Developed	165
FACING	Util-A-Crete® Concrete Backer Board
Thickness	1/4"
Compressive Strength	2600 lbs. per sq.in.
Flame Spread	5
Smoke Developed	0



MOLD, MILDEW AND MOISTURE RESISTANT:

Water absorption of ProGUARD® DP is less than 2% by volume for EPS and .03% by volume for XPS when tested in accordance with ASTM C272. The water vapor permeability for both EPS and XPS is less than 0.6 when laminated to the UtilA-Crete® skin. ProGUARD® DP is highly resistant to mold and mildew in accordance with ASTM D3273.

JOINT SEALING:

All panel joints shall be sealed with alkali resistant mesh tape and Laticrete MVIS Bonding Mortar or other approved mortars for stucco or EIFS applications. The panel joints shall be sealed prior to the application of any type of exterior finish.

INSULATION:

Because the insulation is placed on the outside of the wall assembly, heat transfer through the studs or block is greatly reduced. ASHRAE states that this heat transfer can be as high as 25% on conventional steel stud construction (it will be slightly less on wood stud construction). In addition, by insulating completely on the outside of the stud, it is unlikely that the dew point will be reached within the wall cavity thus preventing condensation and greatly reducing the likelihood of mold and mildew formation within the wall structure.

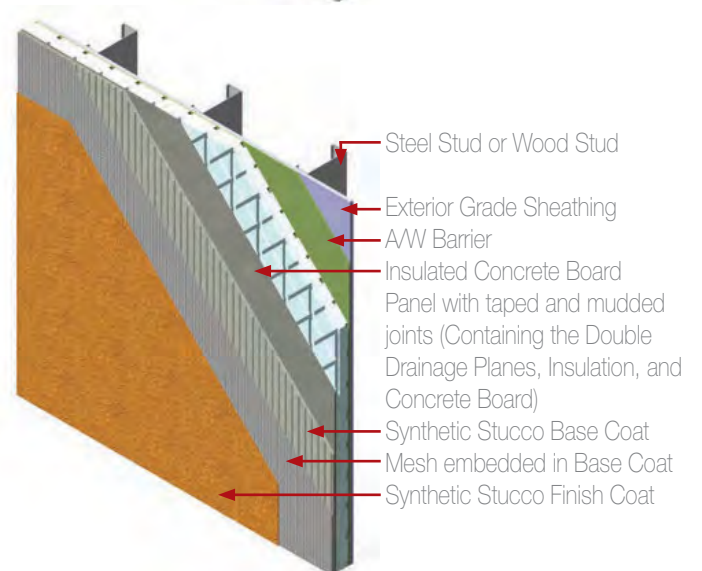
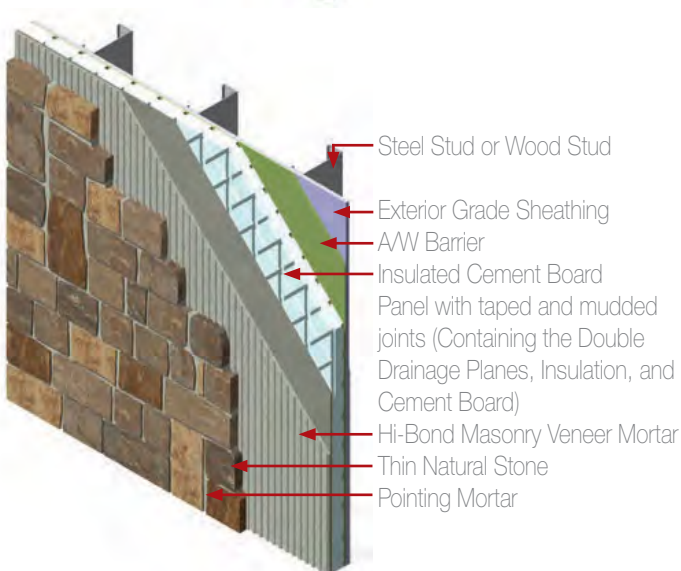
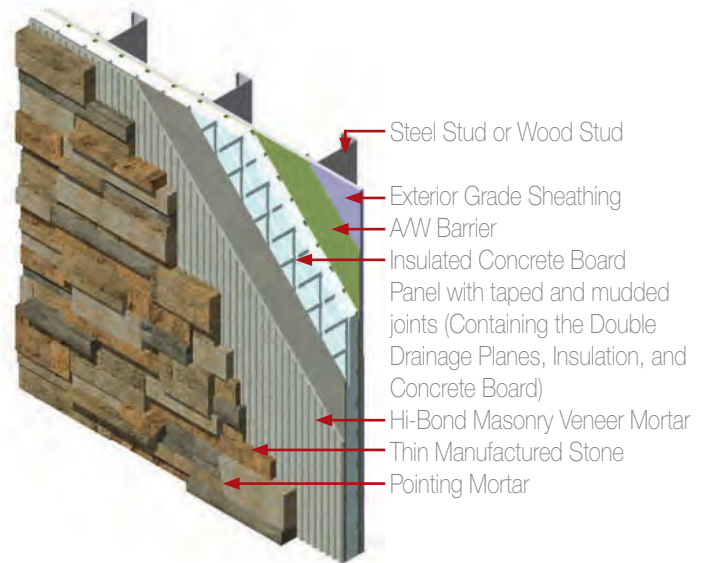
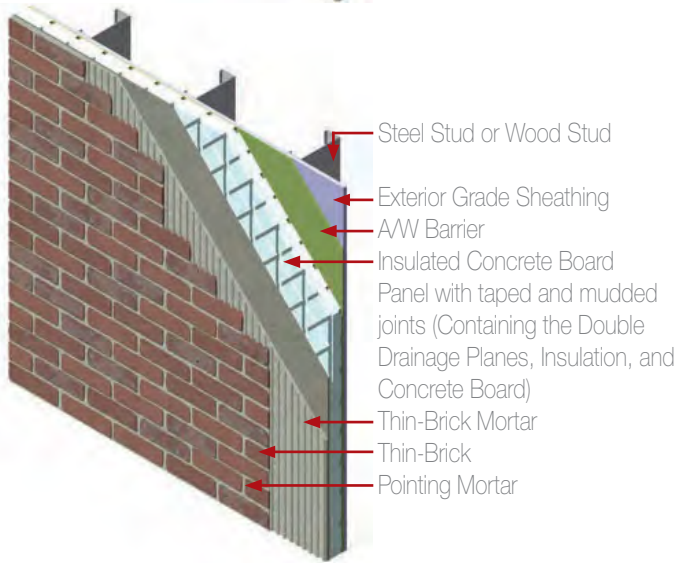
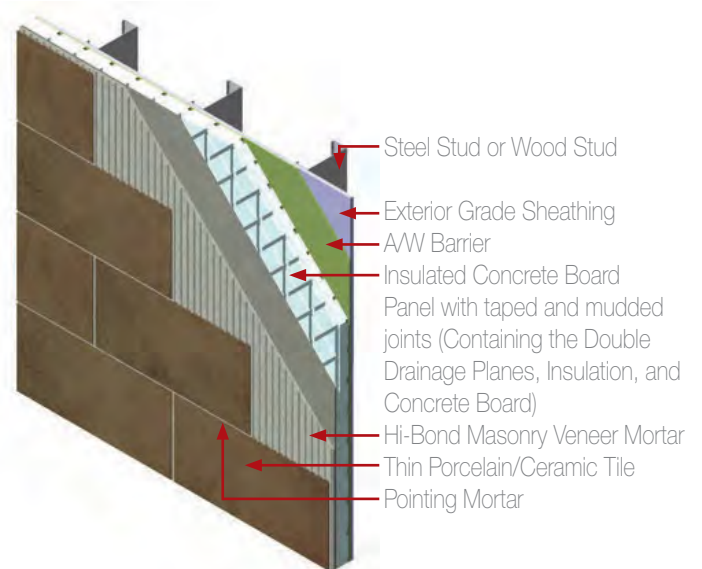
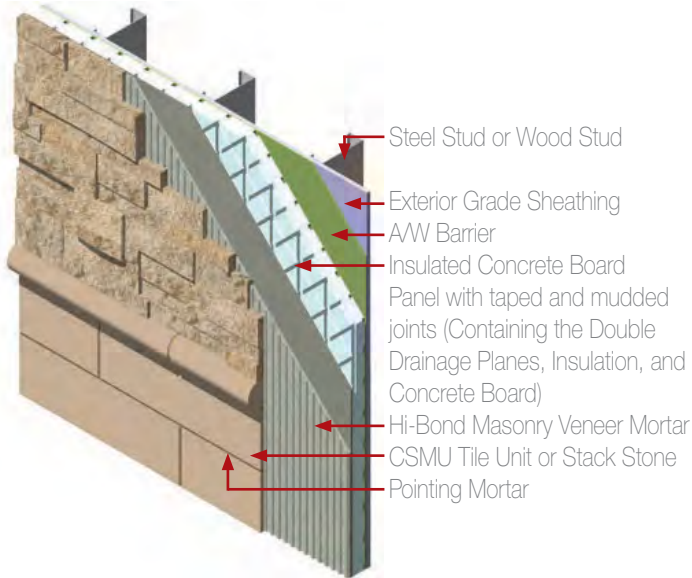
CODE APPROVAL:

ProGUARD® DP meets the requirements of the following Building Codes:

- International Building Code (IBC)
- International Residential Code (IRC)

Code Listing by NTA, Inc. Listing Report# TCC022305-25

INSTALLATION



Details for installations over concrete block and poured concrete surfaces are also available..

ProGUARD[®] DP Insulated Concrete Board Panel Specifications

EPS Foam Insulation with Single Drainage Plane

PROGUARD [®] DP SIZE AND THICKNESS	INSULATION THICKNESS	WEIGHT PER PIECE (LBS.)	R-VALUE (MOST TYPICAL) PER ASTM C-578 (4.35/IN) @75°F	R-VALUE PER ASTM C-578 (4.76/IN) @40°F	R-VALUE PER ASTM C-578 (5.00/IN) @25°F
3'-0" x 8'-0" x 1-1/4" DP-1	1"	52	2.72	2.98	3.13
3'-0" x 8'-0" x 1-1/2" DP-1	1-1/4"	53	3.80	4.17	4.38
3'-0" x 8'-0" x 1-3/4" DP-1	1-1/2"	54	4.89	5.36	5.63
3'-0" x 8'-0" x 2" DP-1	1-3/4"	54	5.98	6.55	6.88
3'-0" x 8'-0" x 2-1/4" DP-1	2"	56	7.07	7.74	8.13
3'-0" x 8'-0" x 2-1/2" DP-1	2-1/4"	57	8.15	8.93	9.38
3'-0" x 8'-0" x 2-3/4" DP-1	2-1/2"	58	9.24	10.12	10.63
3'-0" x 8'-0" x 3" DP-1	2-3/4"	59	10.33	11.31	11.88
3'-0" x 8'-0" x 3-1/4" DP-1	3"	60	11.41	12.50	13.13
3'-0" x 8'-0" x 3-1/2" DP-1	3-1/4"	61	12.50	13.69	14.38
3'-0" x 8'-0" x 3-3/4" DP-1	3-1/2"	62	13.59	14.88	15.63
3'-0" x 8'-0" x 4-1/4" DP-1	4"	64	15.76	17.26	18.13
3'-0" x 8'-0" x 5-1/4" DP-1	5"	70	20.11	22.02	23.13
3'-0" x 8'-0" x 6-1/4" DP-1	6"	72	24.46	26.79	28.13

R-Values are net of drainage grooves on one side (foam thickness less 3/8")

XPS Foam Insulation with Single Drainage Plane

PROGUARD [®] DP SIZE AND THICKNESS	INSULATION THICKNESS	WEIGHT PER PIECE (LBS.)	R-VALUE (5.00/IN) @75°F
3'-0" x 8'-0" x 1-3/4" DP-1	1-1/2"	54	5.63
3'-0" x 8'-0" x 2-1/4" DP-1	2"	56	8.13
3'-0" x 8'-0" x 2-3/4" DP-1	2-1/2"	58	10.63
3'-0" x 8'-0" x 3-1/4" DP-1	3"	60	13.13
3'-0" x 8'-0" x 4-1/4" DP-1	4"	64	18.13

R-Values are net of drainage grooves on one side (foam thickness less 3/8")

*To maintain the warranties, all screws, alkali resistant mesh tape, and ProGUARD[®] DP panels must be purchased from Arriscraft/General Shale Distributors.

*Screws and screw spacing must be selected from previously tested and approved ProGUARD[®] DP screws based on NTA Report TRI9030116-28.

*Screws must penetrate into the substrate a minimum of 1". Length should be selected accordingly.

*Screws must fasten into structure (Studs, CMU, Concrete, etc.)



Foam Insulation with Single Drainage Plane

EPS Foam Insulation with Double Drainage Plane

PROGUARD® DP SIZE AND THICKNESS	INSULATION THICKNESS	WEIGHT PER PIECE (LBS.)	R-VALUE (MOST TYPICAL) PER ASTM C-578 (4.35/IN) @75°F	R-VALUE PER ASTM C-578 (4.76/IN) @40°F	R-VALUE PER ASTM C-578 (5.00/IN) @25°F
3'-0" x 8'-0" x 1-3/4" DP-2	1-1/2"	54	3.26	3.57	3.75
3'-0" x 8'-0" x 2" DP-2	1-3/4"	54	4.35	4.76	5.00
3'-0" x 8'-0" x 2-1/4" DP-2	2"	56	5.43	5.95	6.25
3'-0" x 8'-0" x 2-1/2" DP-2	2-1/4"	57	6.52	7.14	7.50
3'-0" x 8'-0" x 2-3/4" DP-2	2-1/2"	58	7.61	8.33	8.75
3'-0" x 8'-0" x 3" DP-2	2-3/4"	59	8.70	9.52	10.00
3'-0" x 8'-0" x 3-1/4" DP-2	3"	60	9.78	10.71	11.25
3'-0" x 8'-0" x 3-1/2" DP-2	3-1/4"	61	10.87	11.90	12.50
3'-0" x 8'-0" x 3-3/4" DP-2	3-1/2"	62	11.96	13.10	13.75
3'-0" x 8'-0" x 4-1/4" DP-2	4"	64	14.13	15.48	16.25
3'-0" x 8'-0" x 5-1/4" DP-2	5"	70	18.48	20.24	21.25
3'-0" x 8'-0" x 6-1/4" DP-2	6"	72	22.83	25.00	26.25

R-Values are net of drainage grooves on two sides (foam thickness less 3/4")

XPS Foam Insulation with Double Drainage Plane

PROGUARD® DP SIZE AND THICKNESS	INSULATION THICKNESS	WEIGHT PER PIECE (LBS.)	R-VALUE (5.00/IN) @75°F
3'-0" x 8'-0" x 1-3/4" DP-2	1-1/2"	54	3.75
3'-0" x 8'-0" x 2-1/4" DP-2	2"	56	6.25
3'-0" x 8'-0" x 2-3/4" DP-2	2-1/2"	58	8.75
3'-0" x 8'-0" x 3-1/4" DP-2	3"	60	11.25
3'-0" x 8'-0" x 4-1/4" DP-2	4"	64	16.25

R-Values are net of drainage grooves on two sides (foam thickness less 3/4")

Mineral Wool Insulation (6 lbs. density) with No Drainage Planes (Drainage planes are not required as mineral wool is free draining)

PROGUARD® DP SIZE AND THICKNESS	INSULATION THICKNESS	WEIGHT PER PIECE (LBS.)	R-VALUE (4.30/IN) @75°F
3'-0" x 8'-0" x 1-1/4" DP-0	1"	52	4.3
3'-0" x 8'-0" x 1-3/4" DP-0	1-1/2"	54	6.45
3'-0" x 8'-0" x 2-1/4" DP-0	2"	56	8.6
3'-0" x 8'-0" x 2-3/4" DP-0	2-1/2"	58	10.75
3'-0" x 8'-0" x 3-1/4" DP-0	3"	60	12.90
3'-0" x 8'-0" x 3-3/4" DP-0	3-1/2"	62	15.05
3'-0" x 8'-0" x 4-1/4" DP-0	4"	64	17.20
3'-0" x 8'-0" x 5-1/4" DP-0	5"	70	21.50
3'-0" x 8'-0" x 6-1/4" DP-2 (Double Drainage Plane)	6"	72	25.80



Foam Insulation with Double Drainage Plane

Arriscraft and General Shale, along with their exclusive dealer/distributor partners, are the exclusive North American distributors/dealers of the Drainage Plane ProGUARD® DP Insulated Concrete Board Panels. Please contact your local Arriscraft or General Shale dealer for samples, pricing and ordering information, or any additional material specific information.

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Email: solutions@arriscraft.com

General Shale Corporate Headquarters

Johnson City, Tennessee

Phone: 423-282-4661



Utah State University Central Instructional Building - Price, UT



Thermal Break Elimination

Energy Code Continuous Insulation (ASHRAE 90.1, IECC, SB-10)



Mold/Mildew Resistance

Meets ASTM D-3273



Wind Resistance

Up to 160 Mph



Impact Resistant Surface

Ready for Direct Application of Exterior Finishes



Code Listings

TCC022305-25



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