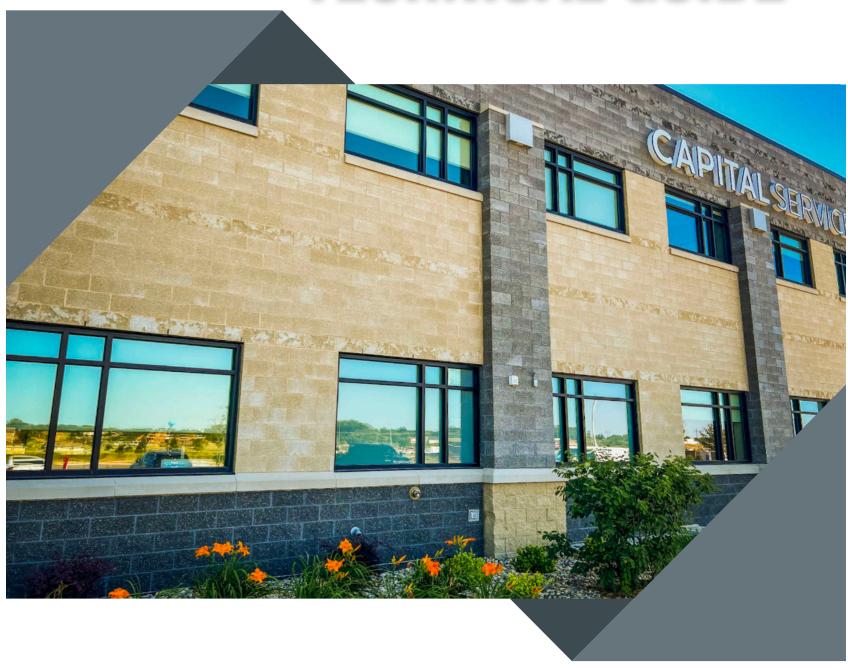
CONCRETE PRODUCTS TECHNICAL GUIDE



ZAMCON®



59899-001-Amcon Block Catalog 2024.indd 1 10/24/24 9:31 AM

AMCON®

Products available in a wide variety of sizes, shapes, and colors.

Part of the National Concrete Products Group.

Amcon Concrete Products is proud to be a part of the Concrete Products Group (CPG) offering product availability and consistency nationwide. CPG products offered by Amcon include Spec-Brik®, Spec-Brik® Jumbo, Spec-Finish®, WCT® Water Control Technology, and the most recent addition of Spec-Thermal TM Pre-Insulated Masonry.





Karmel Square: Polished Unit - (Onyx) Spec Brik Unit - (Lite Kasota and Houston Blend)



Capital Services: Burnished Unit (Onyx and Nutmeg) Travertina Unit - (Onyx and Nutmeg) Rock Face Unit - (Onyx)

TABLE OF CONTENTS

Technical Data - Fire Ratings	4
Technical Data - Specifications	5
Technical Data - Compressive Strengths	6
Technical Data - Soundblox	7
Delivery Data	8-9
Solid Block	10
4" Block	11
6" Block	12
8" Block	13-14
10" Block	15
12" Block	16-17
14" Block	17
16" Block	17
24" Block and Special Shapes	18
Scored Block	
Soundblox/Soundcell	20
Rock Face	21-22
Mammoth Stone® Series	23
Stone Mason™ Series	24
Spec-Brik® Series	25
Sill Block	26-27
8 Rib Split	28
Corduroy	29
4 Flute	29
Architectural Textures	30-31
Project Profiles	32-33
Bond Patters	34-36
Product Glossary	37
Spec-Thermal Korfil Hi R and Hi R H	38-39

FIRE RATING

RATED FIRE RESISTIVE PERIODS

Fire resistance of concrete masonry units is determined by the "equivalent thickness" of the block and the type of aggregate. The equivalent thickness is theoretical thickness of the block if all the concrete was molded into a solid unit. It is calculated by multiplying the actual thickness by the % of solids. As an example, an 8" block with 52% solids has an equivalent of 4.0 in. $(7.625 \times 52\% = 4)$. The greater the equivalent thickness, the greater the fire rating. Lightweight aggregate (expanded clay) has a better fire rating than standard weight aggregate (siliceous gravel). As an example, an 8" standard weight block has a 1 hour rating and an 8" lightweight block has a 2 hour rating. Filling the cores of the block with grout or other non-combustible material will increase the fire resistance. Applying plaster or gypsum wall board will also increase the fire resistance.

Estimated Fire Resistive Periods of Walls and Partitions of Hollow Concrete Masonry Units

	Minimum equivalent thickness for ratings of:						
Type of coarse aggregate:	4 hour	3 hour	2 hour	1 hour			
Expanded Clay (lightweight):	5.7"	4.9"	3.9"	2.7"			
Siliceous Gravel (standard weight):	6.2"	5.3"	4.2"	2.8"			

(Based on The International Building Code as adopted by the Minnesota State Building Code)

Block Size (Inches)	Block Core	Face Shell Thickness	Web Thickness	% Solids	Equivalent Thickness in Inches	Fire Rating Std. Weight	Fire Rating Lgt. Weight
4x8x16		1"	1"	75%	2.7	0.75	1
4x8x16		Solid	-	100%	3.6	1.5	1.5
6x8x16		1"	1"	57%	3.2	1	1
6x8x16		2"	1"	87%	4.9	2	3
8x8x16		1 1/4"	1"	52%	4	1	2
8x8x16		1 3/8"	1"	55.3%	4.2	2	2
8x8x16		2 1/8"	1 1/4"	75%	5.8	3	4
8x8x16	Open Core	1 7/8"	1"	56%	4.2	2	2
8x8x16	Open Core	2 1/2"	1"	70%	5.3	3	3
8x8x16	Open Core	3"	1"	81%	6.2	4	4
8x8x16		Solid	-	100%	7.6	4	4
10x8x16		1 3/8"	1 1/8"	51%	4.9	2	3
12x8x16		1 1/4"	1 1/8"	45%	5.2	2	3
12x8x16		1 1/2"	1 1/8"	47%	5.5	3	3
12x8x16		2 1/2"	1 1/8"	60%	7	4	4
12x8x16	Open Core	1 1/2"	1 1/4"	38%	4.4	2	2
12x8x16	Open Core	2 1/8"	1 1/4"	47%	5.4	3	3
12x8x16	Open Core	2 5/8"	1 1/4"	54%	6.3	4	4
14x8x16		1 1/2"	1 1/8"	46%	6.3	4	4
16x8x16		1 1/2"	1 1/8"	44%	6.9	4	4

The above table is based on the International Building Code (IBC). More information about determining fire ratings can be found in TEK 07-01D or by contacting Amcon Concrete Products.

SPECIFICATIONS, SOUND TRANSMISSION, AND CORE FILLING DATA

COMPRESSIVE STRENGTH EVALUATION OF CONCRETE MASONRY - UNIT STRENGTH METHOD

Compliance with the specified compressive strength (f'm) of concrete masonry structures is verified by one of two methods: the Unit Strength Method or the Prism Test Method. These two methods are referenced in masonry design codes (ref. 1) specifications (ref. 2), and standards (ref.3) as rational procedures for verifying masonry compressive strength.

The Unit Strength Method is the least expensive and most convenient of the two methods. It is important to note that the Unit Strength Method also yields more conservative results when compared to the Prism Test Method particularly at the higher end of unit masonry strengths, either method is acceptable for verifying compliance with the specified f'm value of the project.

The table below is from the 2015 International Building Code (IBC) Requirements for Masonry Structures. Note that it now recognizes 2,000 psi CMU Walls Using Type S Mortar as having 2,000 psi f'm comprehensive strength. Prior Code editions only recognized a value of 1,500 psi f'm. This is a 33% improvement over previous Codes, is long overdue, and results in more cost-effective wall structures.

1	essive Strength of sonry Units, psi	Net Area Compressive Strength of Masonry (2), f 'm
Type M or S Mortar	Type N Mortar	psi
	1,900 (13.10)	1,700 (11.72)
1,900 (13.10)	2,350 (14.82)	1,900 (13.10)
2,000 (13.79)	2,650 (18.27)	2,000 (13.79)
2,600 (17.93)	3,400 (23.44)	2,250 (15.51)
3,250 (22.41)	4,350 (28.96)	2,500 (17.24)
3,900 (26.89)		2,750 (18.96)
4,500 (26.89)		4,500 (26.89)

^{**}Due to the recent changes in International Building Code Requirements, it is important that you check local building codes to confirm current codes for your project location(s)**

Compliance with the specified compressive strength (f 'm) by the Unit Strength Method is based on the net area compressive strength of the CMU's being used and on the type of mortar being used. The masonry assembly is then established in accordance with Table 1. Table 1 is based on criteria found in Section 1.4.B.2.b of Specification for Masonry Structures (ref. 2), and from similar provisions found in Section 2105.2.2.1.2 of the International Building Code (ref. 4). According to both of these documents, use of the Unit Strength Method requires the following:

- 1. Masonry Units must be sampled and tested in accordance with ASTM C 140 Standard Test Method for Sampling and Testing Concrete Masonry Units and Related Units (ref. 5) and meet the requirements of either ASTM C 55 Standard Specifications for Concrete Brick (ref. 6) or ASTM C 90 Standard Specification for Loadbearing Concrete Masonry Units (ref.7).
- 2. Thickness of bed joints used in construction must not exceed 5/8".
- 3. If grouted masonry is used in construction, the grout must either meet the proportion or property specification of ASTM C 476 Standard Specification for Grout for Masonry (ref. 8). When property specifications are used, the compressive strength of the grout is determined in accordance with ASTM C 1019 Standard Test Method of Sampling and testing Grout (ref. 9).
- 4. Mortar must comply with requirements of ASTM C270 Standard Specification for Mortar for Unit Masonry (ref. 10) or ASTM C 1329 Standard Specification for Mortar Cement (ref. 12).

When higher strength masonry materials are specified, it is usually more cost effective to utilize the Prism Test Method to demonstrate compliance with f'm due to the level of conservatism inherent in the Unit Strength Method. If testing larger CMU's using the Prism Method, cutting the units in half prior to constructing the prism will provide a more accurate assessment of the strength of the materials in the masonry prism as well as lessening the likelihood of damage occurring to the prism when handling and transporting. The practice of cutting larger units in half prior to construction of prisms is encouraged in ASTM C 1314 (Note 2) Standard Test Method for Compressive Strength of Masonry Prisms (ref. 3).

COMPRESSIVE STRENGTHS - UNIT STRENGTH

SPECIFICATIONS

All concrete masonry units manufactured by Amcon Block:

- 1) exceed minimum standards as established by ASTM C90 for load bearing concrete masonry units.
- 2) meet all existing code requirements (Minnesota State Building Code is based on the International Building Code—I.B.C.)

All standard weight aggregate conforms to the requirements of ASTM C33.

All lightweight aggregate conforms to the requirements of ASTM C331.

SOUND TRANSMISSION

SOUND TRANSMISSION CLASS (STC) FOR SINGLE WYTHE CONCRETE MASONRY WALLS

WALL DESCRIPTION	4"	6"	8"	10"	12"
No Surface Treatment:					
Hollow, Standard Weight	44	45	48	50	51
Hollow, Lightweight	41	43	45	47	49
Solid, Standard Weight	45	48	54	55	56

All STC ratings shown are calculated from test data and based on wall weights using standard and lightweight block as manufactured by Amcon Block.

References: (1) National Concrete Masonry Association Tek 13-01C.

CORE FILLING DATA

Wall Thickness	Block Size (Inches)	% Solids	Cu. Ft. of Material to Fill One Block	# of Block Per Cu. Yard
6"	6 x 8 x 16 Regular	57	.22	122
8"	8 x 8 x 16 Regular	52	.27	100
8"	8 x 8 x 16 3-hour Rated	77	.18	151
8"	8 x 8 x 16 BB	-	.23	118.5
10"	10 x 8 x 16 Regular	51	.325	83
12"	12 x 8 x 16 Regular	45	.47	57
12"	12 x 8 x 16 3-hour Rated	47	.46	59
12"	12 x 8 x 16 4-hour Rated	57	.37	73
12"	12 x 8 x 16 Lintel	-	.485	55.5
12"	12 x 8 x 16 BB	-	.42	64.5
14"	14 x 8 x 16 Regular	46	.50	54
16"	16 x 8 x 16 Regular	44	.61	44

SOUNDBLOX

SOUND ABSORPTION COEFFICIENTS - TYPE RSC/RF and RSC

Size	Туре	Surface	Exposed Slots/		Frequency - Hertz																
- CIEC	,,,,	Curiuoc	Cavities	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	NRC
8"	RSC/RF	PAINTED	2/5	.18	.22	.36	.64	1.12	1.16	1.02	.89	.76	.72	.76	.77	.80	.73	.68	.58	.65	.80
10"	RSC/RF	PAINTED	2/5	.18	.22	.36	.64	1.12	1.16	1.02	.89	.76	.72	.76	.77	.80	.73	.68	.58	.65	.80
12"	RSC/RF	PAINTED	2/5	.48	.70	.93	1.14	1.05	.97	.91	.84	.75	.76	.77	.70	.67	.68	.56	.51	.59	.85
12"	RSC/RF-4	PAINTED	2/5	.18	.22	.36	.64	1.12	1.16	1.02	.89	.76	.72	.76	.77	.80	.73	.68	.58	.65	.80
4"	RSC	PAINTED	2/3	.18	.22	.36	.64	1.12	1.16	1.02	.89	.76	.72	.76	.77	.80	.73	.68	.58	.65	.80
6"	RSC	PAINTED	2/3	.48	.70	.93	1.14	1.05	.97	.91	.84	.75	.76	.77	.70	.67	.68	.56	.51	.59	.85
8"	RSC	PAINTED	2/4	.48	.85	1.17	.99	.90	.88	.98	.79	.62	.58	.60	.61	.70	.69	.70	.64	.51	.80
12"	RSC	PAINTED	2/4	.57	*	*	.76	*	*	1.09	*	*	.94	*	*	.54	*	*	.59	*	.85

The above sound absorption data was determined by tests conducted at Geiger and Hamme Acoustical Laboratory in strict compliance with ASTM C423 specifications. Actual installed performance may vary.

^{*} Measurements at these frequencies were not taken.

DELIVERY DATA

Unit Sizes & Type	Unit Dry Weight	Unit Per Cube	Weight Per Cube*	# Cubes 40,000 lb. Max Load	Total # of Blocks Per Load 40,000 lb.	# Cubes 48,000 lb. Max Load**	Total # of Blocks Per Load 48,000 lb.
2 x 8 x 16 Solid (SF)	15	240	3650	11	2640	13	3120
3 x 8 x 16 Solid (SF)	25	120	3050	13	1560	15	1800
4 x 4 x 16 Solid (SF, Bur. or RF)	19	180	3470	11	1980	13	2340
4 x 4 x 24 Solid (RF)	28	120	3410	12	1440	14	1680
4 x 8 x 16 Solid (SF or Bur.)	39	120	4730	8	960	10	1200
4 x 8 x 16 Solid (RF)	39	120	4730	8	960	10	1200
4 x 8 x 12 Solid (SF or Bur.)	29	160	4690	8	1280	10	1600
4 x 8 x 12 Solid (RF)	29	160	4690	8	1280	10	1600
4 x 8 x 24 Solid (SF, RF or Bur.)	60	60	3650	11	660	13	780
4 x 12 x 12 Solid (SF, Bur. or RF)	38	72	2786	14	1008		1224
4 x 12 x 16 Solid (SF, Bur. or RF)	54	60	3290	12	720	14	840
4 x 12 x 24 Solid (RF)	84	42	3578	11	462	13	546
4 x 16 x 24 Solid (RF)	112	30	3410	11	330	14	420
4 x 16 x 16 Solid (SF, Bur. or RF)	73	36	2678	15	540	18	648
6 x 4 x 16 Solid (SF, Bur. or RF)	28	120	3410	11	1320	14	1680
6 x 8 x 16 Solid (SF, Bur. or RF)	56	60	3410	11	660	14	840
8 x 8 x 16 Solid (SF or Bur.)	73	60	4430	9	540	10	600
8 x 8 x 16 Solid (RF)	73	60	4430	9	540	10	600
10 x 8 x 16 Solid (SF or Bur.)	85	36	3110	13	468	15	540
10 x 8 x 16 Solid (RF)	87	36	3182	12	432	15	540
12 x 8 x 16 Solid (SF or Bur.)	107	30	3260	12	360	14	420
12 x 8 x 16 Solid (RF)	109	30	3320	12	360	14	420

CODE:

 $\mathsf{SF} = \mathsf{Smooth}\;\mathsf{Face}$

Bur. = Burnished Block RF = Rock Face *Includes 50 lb. Pallet

 $^{^{\}star\,\star}$ Due to size and style of trucks and trailers, load weights may vary between 40,000 and 48.000 lb.

DELIVERY DATA

Unit Sizes & Type	Unit Dry Weight	Unit Per Cube	Weight Per Cube*	# Cubes 40,000 lb. Max Load	Total # of Blocks Per Load 40,000 lb.	# Cubes 48,000 lb. Max Load**	Total # of Blocks Per Load 48,000 lb.
4 x 8 x 16 Cored Std. Wt. (Bur.)	25	120	3050	13	1560	15	1800
4 x 8 x 16 Cored Std. Wt. (RF)	32	120	3850	10	1200	12	1440
4 x 8 x 16 Cored LW (SF, Bur.)	20	120	2450	16	1920	19	2280
6 x 8 x 16 Cored St. Wt. (Bur.)	31	100	3150	12	1200	15	1500
6 x 8 x 16 Std. Wt. (RF)	33	100	3350	12	1200	14	1400
6 x 8 x 16 Cored LW (SF or Bur.)	25	100	2550	15	1500	18	1800
8 x 8 x 16 Cored St. Wt. (SF or Bur.)	40	75	3050	13	975	15	1125
8 x 8 x 16 Cored Std. Wt. (RF)	43	75	3275	12	960	14	1050
8 x 8 x 16 Cored LW (SF or Bur.)	32	75	2450	16	1200	19	1425
8 x 8 x 16 Bond Beam Std. Wt. (SF or Bur.)	50	75	3800	10	750	12	900
8 x 8 x 16 Fill Top Std. Wt. (RF)	50	75	3800	10	750	12	900
8 x 8 x 16 Bond Beam LW (SF or Bur.)	39	75	2975	13	975	16	1200
8 x 8 x 16 Three Hour Fire Rated Units	50	75	3800	11	750	12	900
10 x 8 x 16 Cored St. Wt. (SF or Bur.)	47	65	3105	13	780	15	975
10 x 8 x 16 Cored St. Wt. (RF)	54	55	3020	13	715	15	825
10 x 8 x 16 Bond Beam Std. Wt. (SF or Bur.)	58	52	3066	13	676	15	780
10 x 8 x 16 Bond Beam LW (SF or Bur.)	36	52	2286	17	884	20	1040
12 x 8 x 16 Cored Std. Wt. (SF or Bur.)	51	60	3110	12	720	15	900
12 x 8 x 16 Cored Std. Wt. (RF)	53	50	2700	14	700	17	850
12 x 8 x 16 Cored LW (SF or Bur.)	42	60	2570	15	900	18	1080
12 x 8 x 16 Bond Beam Std. Wt. (SF or Bur.)	66	50	3350	12	600	14	700
12 x 8 x 16 Bond Beam Std. Wt. (RF)	68	50	3450	11	550	13	650
12 x 8 x 16 Bond Beam LW (SF or Bur.)	51	50	2600	15	750	18	900
12 x 8 x 16 Three Hour Fire Rated Units	58	60	3530	11	660	13	780
14 x 8 x 16 Cored Std. Wt. (SF or Bur.)	60	45	2750	14	630	17	765
14 x 8 x 16 Cored LW (SF or Bur.)	42	45	1940	20	900	20	900
16 x 8 x 16 Cored Std. Wt. (SF)	63	45	2885	14	630		720
16 x 8 x 16 Cored Std. Wt. (SF or Bur.)	63	25	1625	16	400	20	500
16 x 8 x 16 Cored LW. (SF or Bur.)	46	36	1442	16	576	20	720

CODE:

SF = Smooth Face

LW = Lightweight

Bur. = Burnished Block RF = Rock Face *Includes 50 lb. Pallet

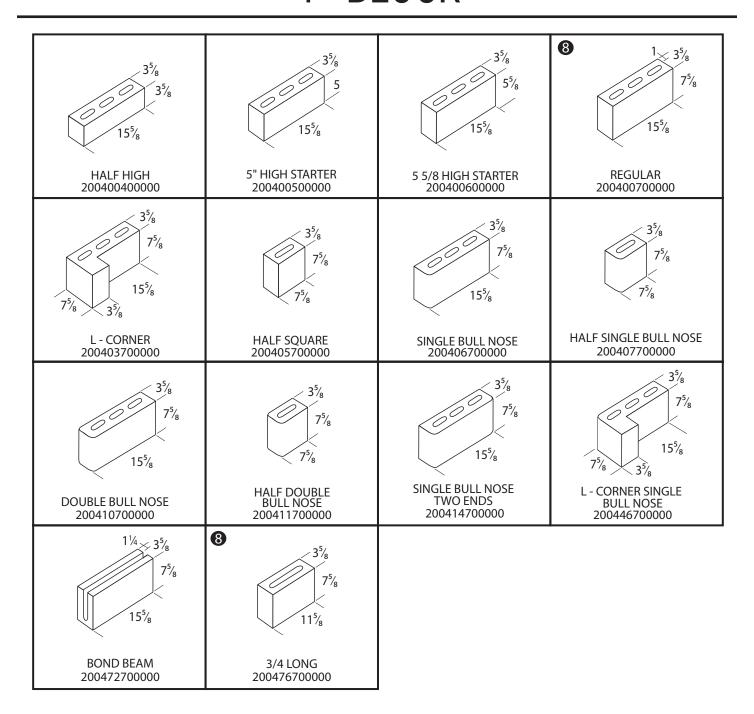
 $^{^{\}star}$ * Due to size and style of trucks and trailers, load weights may vary between 40,000 and 48.000 lb..

SOLID BLOCK

3 ⁵ / ₆ 2 ¹ / ₄	7 ⁵ / ₈ 1 ⁵ / ₈	2 ⁵ / ₈ 7 ⁵ / ₈	3 ⁵ / ₈ 7 ⁵ / ₈
CONCRETE BRICK	2" PATIO SOLID	3"x8"x16" SOLID	4"x8"x16" SOLID
200290200000	200290700000	200390700000	200490700000
3 ⁵ / ₈ 7 ⁵ / ₈	3 ⁵ / ₈ 3 ⁵ / ₈	5 ⁵ / ₈ 3 ⁵ / ₈	35½ 115½ 155½
4"x8"x12" SOLID	4"x4"x16" SOLID	6"x4"x16" SOLID	12"x4"x16" SOLID
200478700000	200490400000	200690400000	201290400000
35/8	35%	3 ⁵ / ₈ 15 ⁵ / ₈ 4"x16"x16" SOLID 201690400000	35/ ₈
155/8	115%		235/ ₈
10"x4"x16" SOLID	4"x12"x12" SOLID		4"x4"x24" SOLID
201090400000	201278400000		202404400000
5 ⁵ / ₈ 7 ⁵ / ₈ 6"x8"x16" SOLID 200690700000	7 ⁵ / ₈ 7 ⁵ / ₈ 8"x8"x16" SOLID 200890700000	9 ⁵ / ₈ 7 ⁵ / ₈ 10"x8"x16" SOLID 201090700000	11 ⁵ / ₈ 7 ⁵ / ₈ 12"x8"x16" SOLID 201290700000

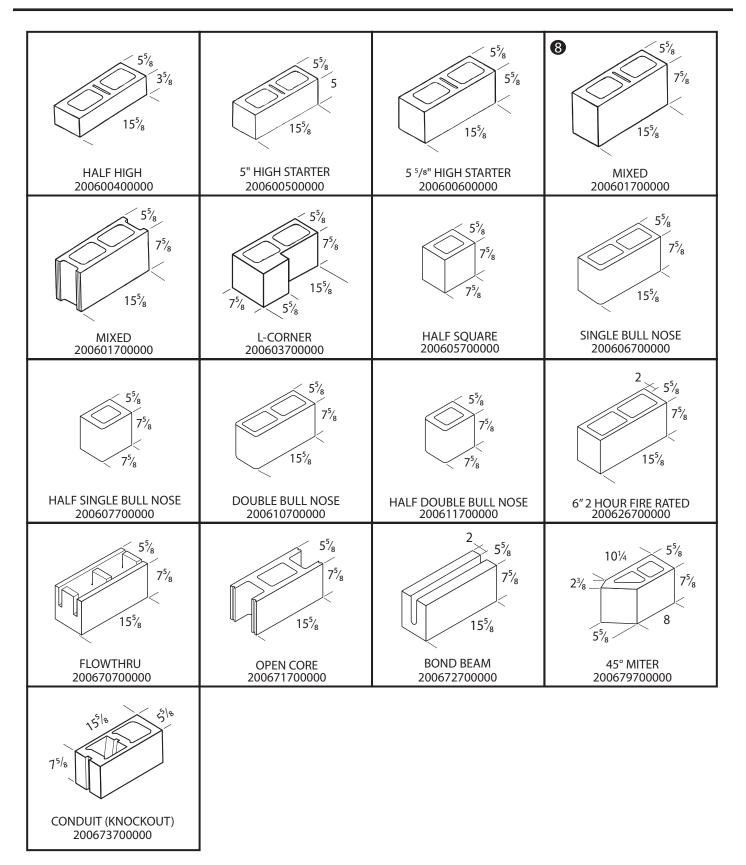
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.



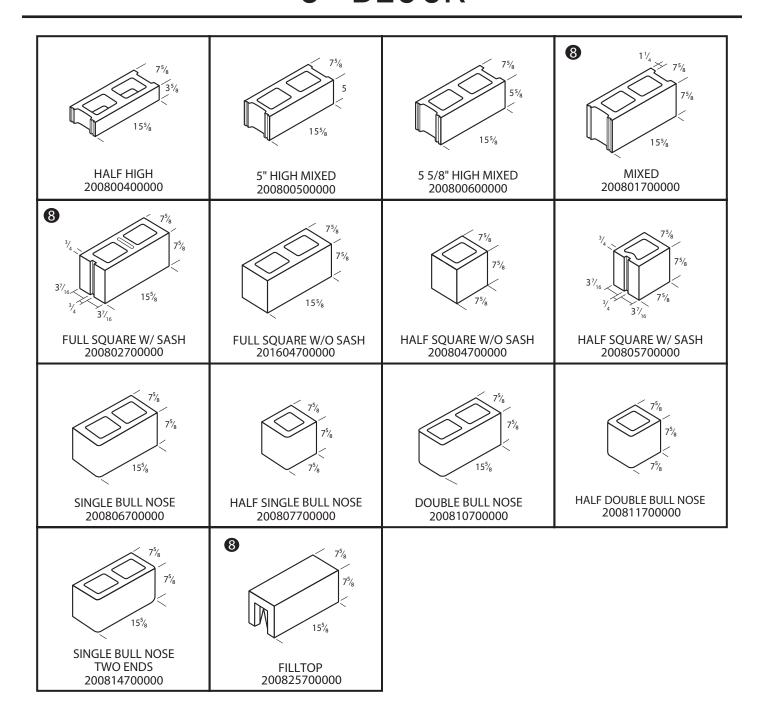
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.



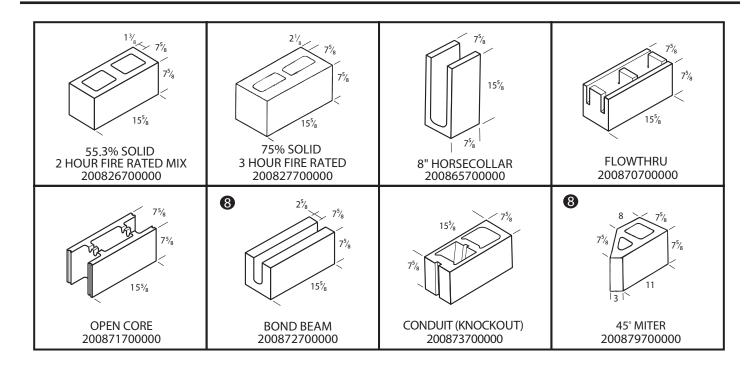
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.



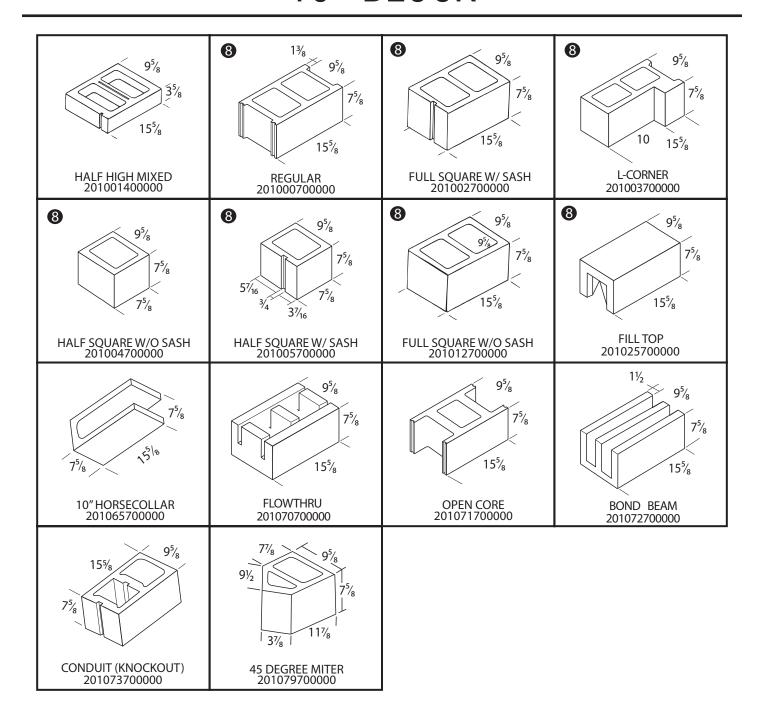
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.



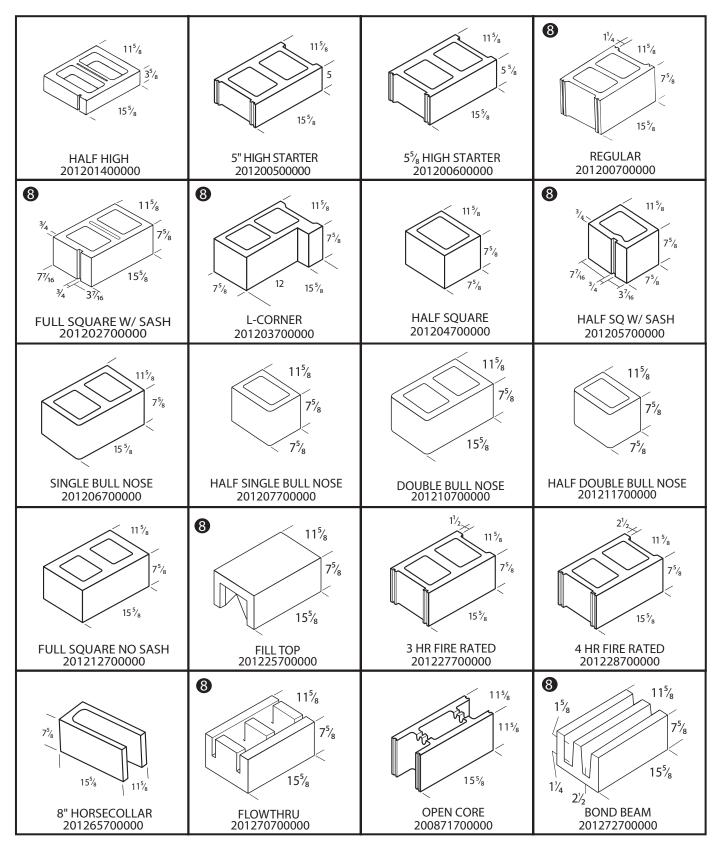
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.



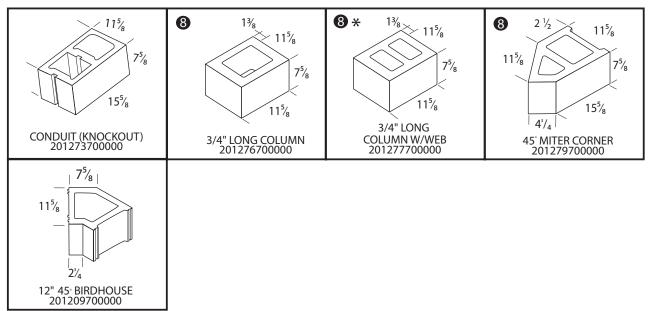
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

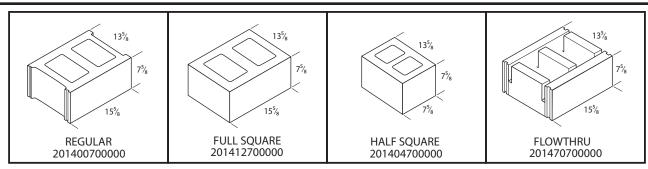


NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

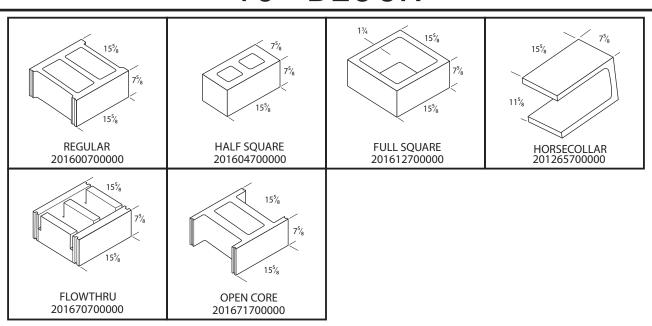
3 Denotes full 8" high units also available at some locations.



14" BLOCK



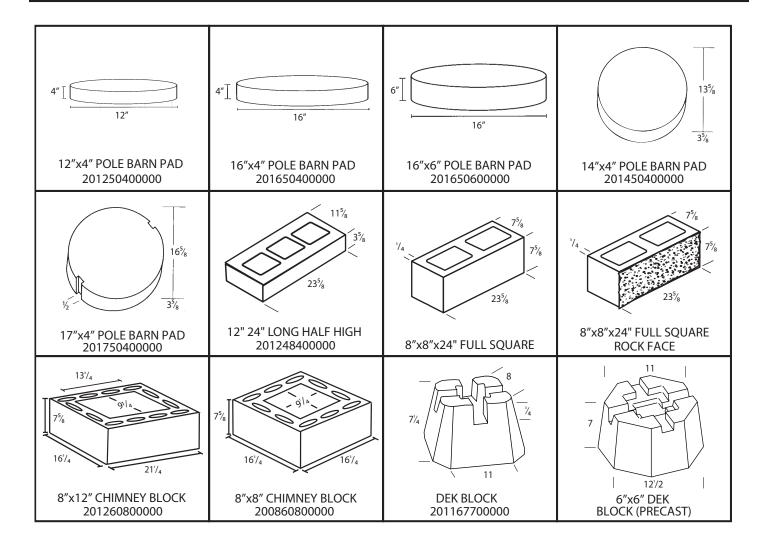
16" BLOCK



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

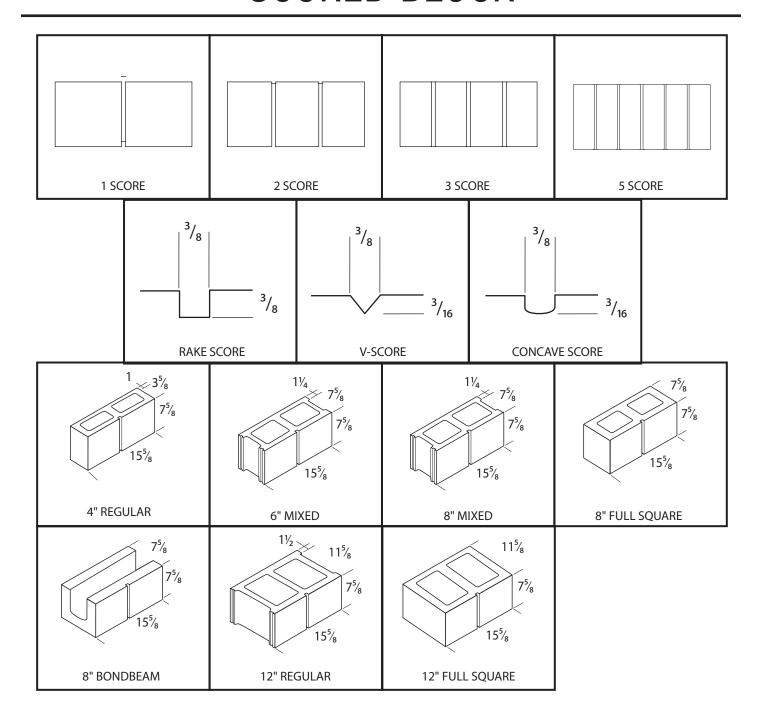
24" BLOCK & SPECIAL SHAPES



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

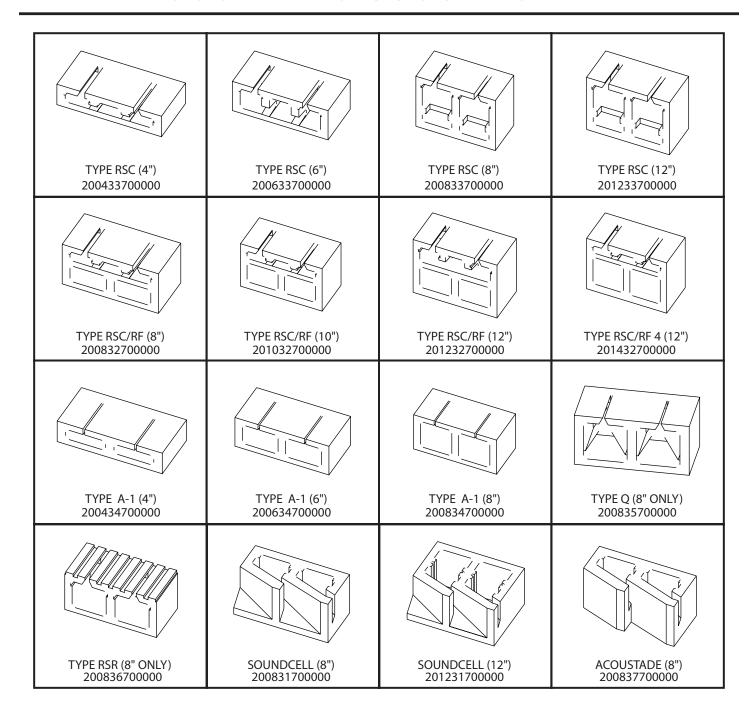
SCORED BLOCK



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

SOUNDBLOX/SOUNDCELL

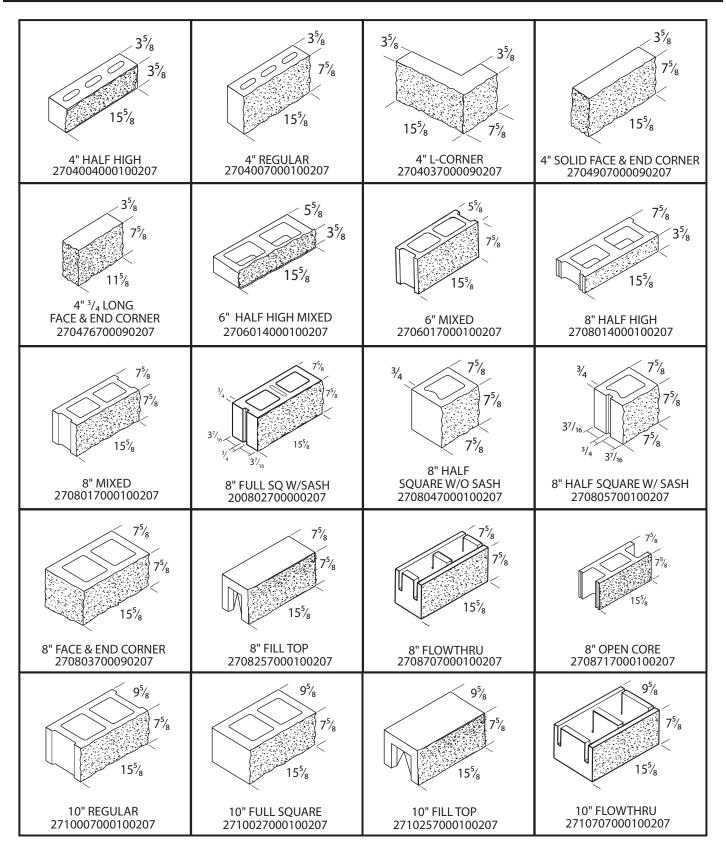


NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

10/24/24 9:31 AM

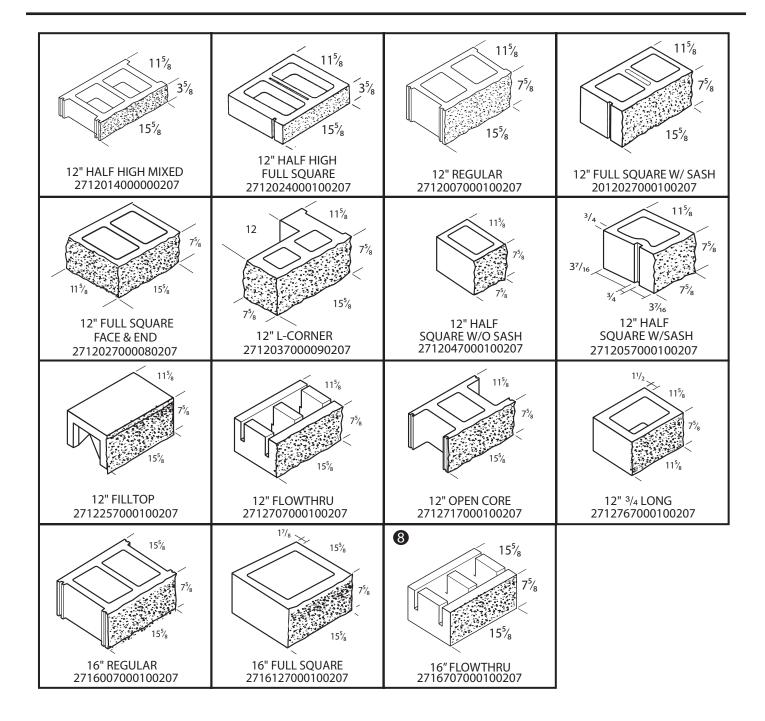
ROCK FACE



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

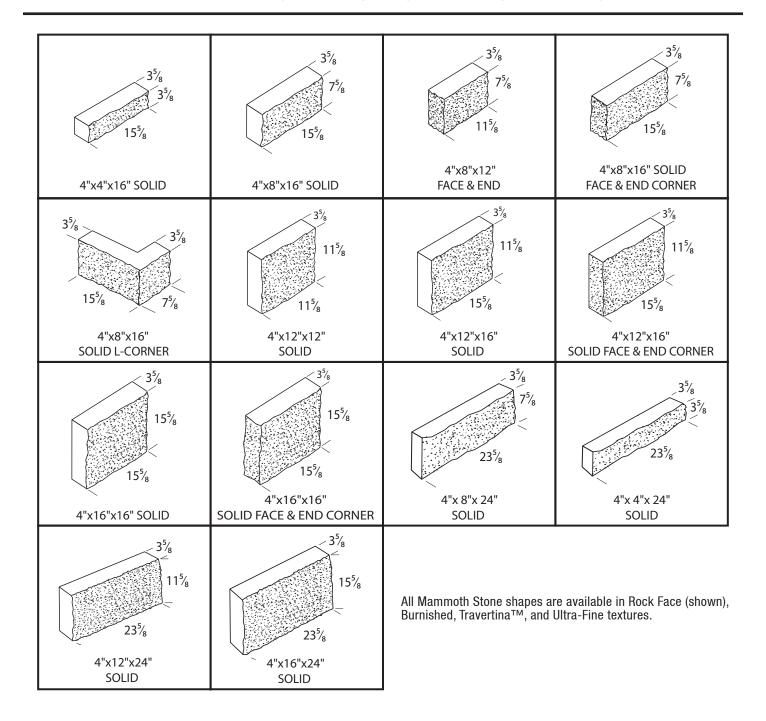
ROCK FACE



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

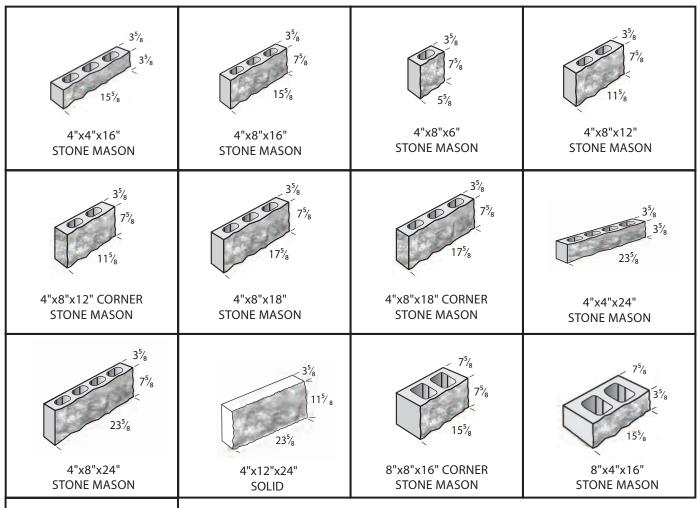
MAMMOTH STONE® SERIES

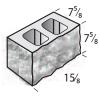


NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

STONE MASON™ SERIES





8"x8"x16" CORNER STONE MASON

Mixed Cubes: 6", 12" and 18" long units: Square Feet per cube- 73.6

Pieces per cube- 120 (40 pieces of each size) Weight per cube- 2880 lb

Mixed Cubes: 6", 12" and 24" long units: Square feet per cube- 69.12

Pieces per cube- 96 (32 pieces of each size)

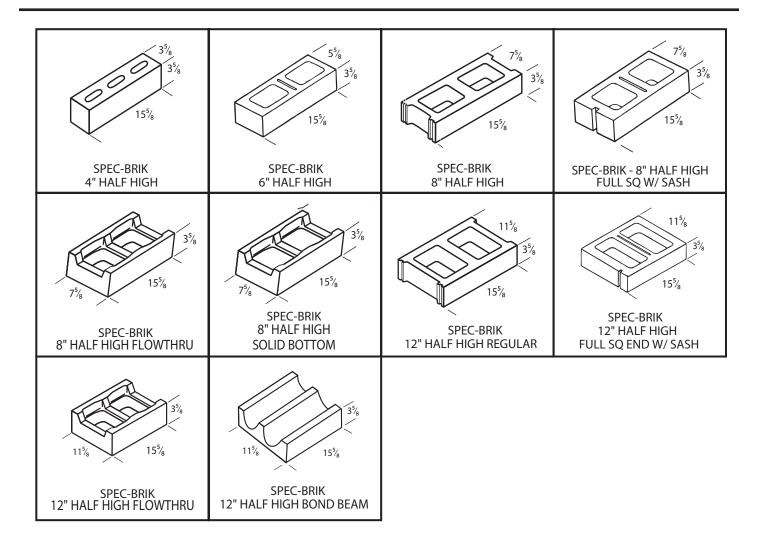
Weight per cube- 2688

Mixed Cubes: 6", 12" and 18" long corner units: Square feet per cube- 88.8 Pieces per cube- 120 (40 pieces of each size) Weight per cube 2880

NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

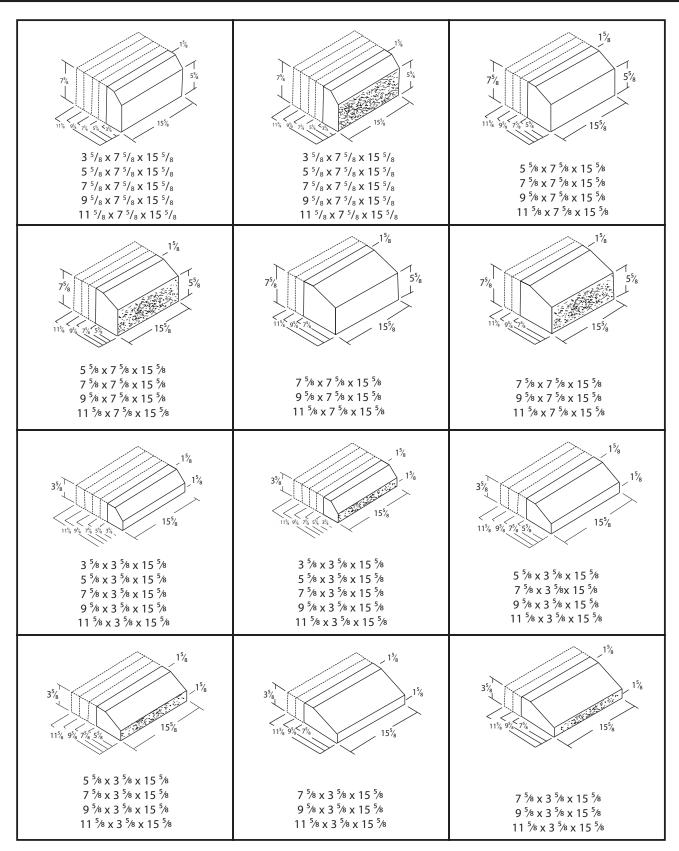
SPEC-BRIK® SERIES



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

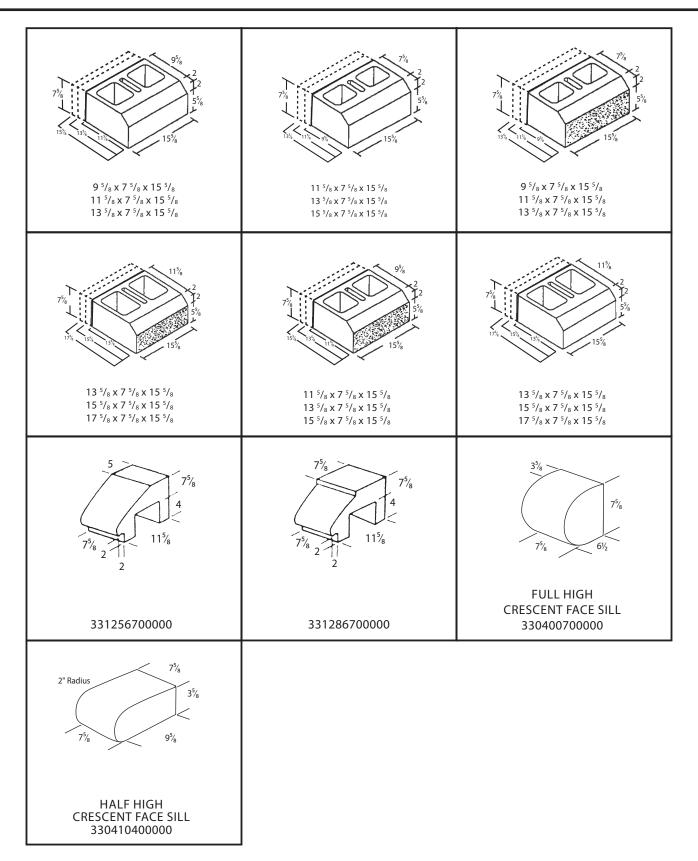
SILL BLOCK



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

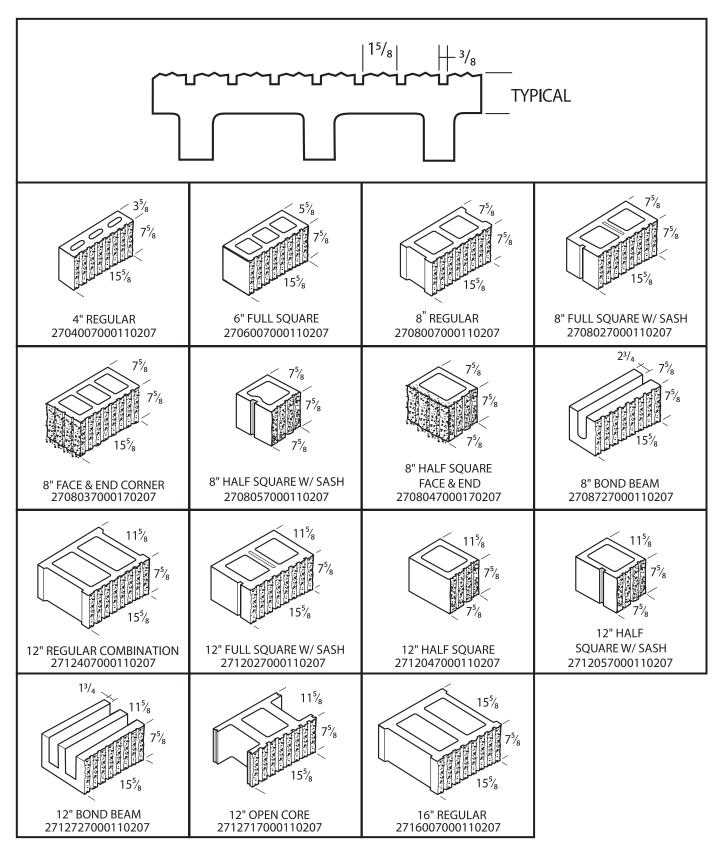
SILL BLOCK



NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

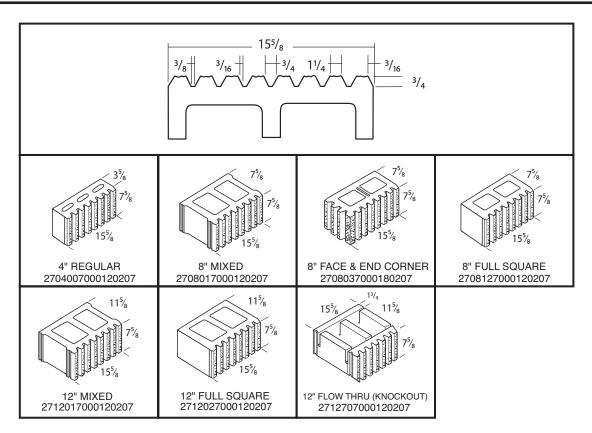
8 RIB SPLIT



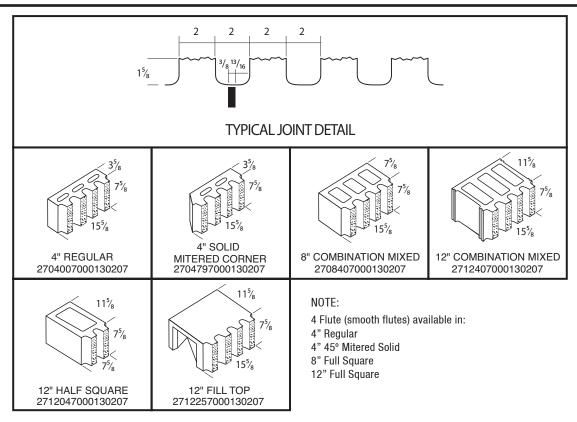
NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

CORDUROY



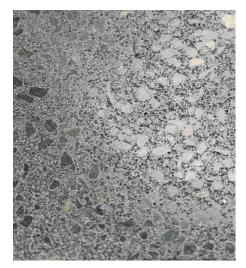
4 FLUTE BREAKOFF

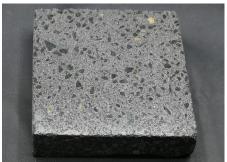


NOTE: Product availability varies by plant location. Please contact your sales rep or the plant for inventory questions.

3 Denotes full 8" high units also available at some locations.

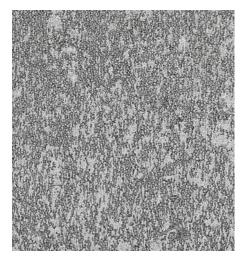
ARCHITECTURAL TEXTURES





Polished Architectural Series, which uses advanced technology to achieve a high-shine, polished finish on concrete masonry units (CMU) and precast products. This series offers a light-reflective, polished surface as an alternative to tile veneer, combining the aesthetic appeal with the durability and cost-effectiveness of a CMU.





Ultra-Fine Architectural Series feature a unique mix with finer aggregate and extra cement, combined with premium-graded sands, resulting in a smoother, satin-like texture on smooth-face architectural units.





Rock Face Architectural Series features a full-face split that elevates the look of CMUs, enhancing any project affordably. Available in structural or veneer options.





Travertina™ Architectural Series offers a refined, sophisticated look inspired by the natural beauty of travertine stone. Its distinctive linear veining and subtle surface variations create a timeless, elegant aesthetic perfect for both modern and classic architectural designs.

ARCHITECTURAL TEXTURES





Burnished Architectural Series features a smooth-faced concrete masonry unit (CMU) achieved by grinding the surface to reveal the natural beauty of the aggregate within the block. It is available in both structural and veneer options.





BrushHammered Architectural Series features a design inspired by washed river rocks, offering a visually appealing texture with a soft, tactile feel that highlights the aggregates. Perfect for interior accents.



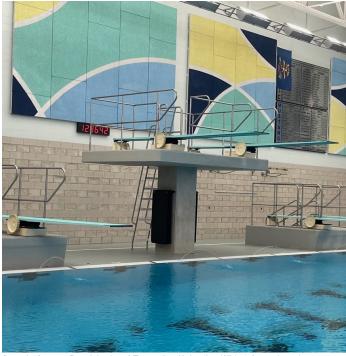


BushHammered Architectural Series showcases a compact, pockmarked texture that delivers a rugged, weathered look while preserving the color and aggregate—ideal for exterior applications.

PROJECT PROFILES



Nampa Fire Station: Spec-Thermal® Hi-R H Rock Face Unit (Shadow)



Aquatic Center: Burnished and Travertina Units (Ice White) Smooth and Travertina Unit (Limerock)



Sanford Clinic: Stone Mason Unit (Limerock)





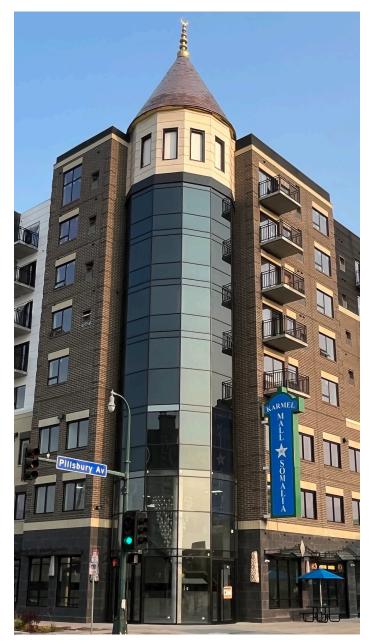


32

PROJECT PROFILES



Range Park USA: Spec Brik Unit (Chesapeake Blend and Gardner Blend)



Karmel Square: Polished Mammoth Stone Unit (Onyx) Spec-Brik Unit (Lite Kasota and Houston Blend)



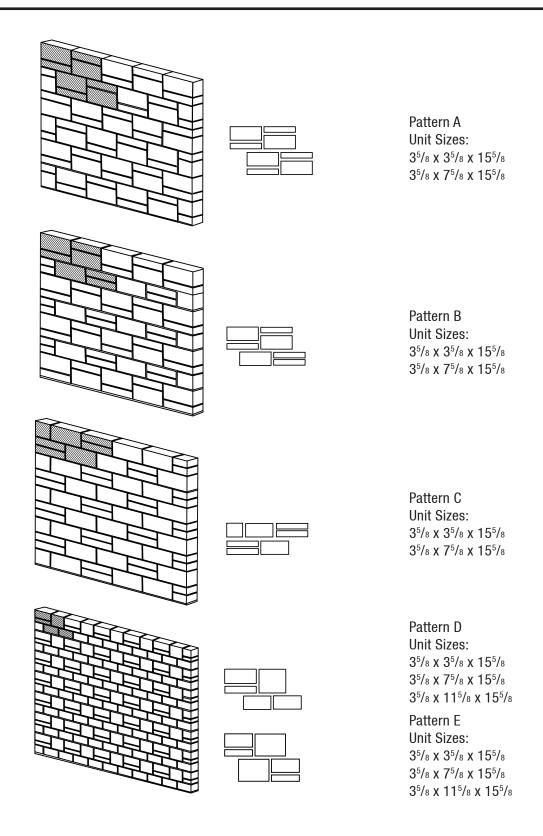




Pints & Paddles: Rock Face Unit (Ivory, Shadow and Grey Spice)

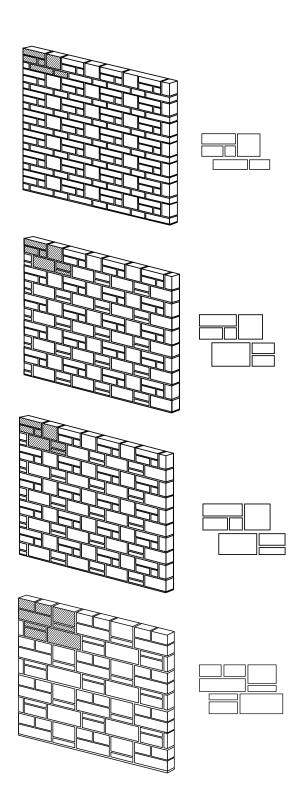
33

BOND PATTERNS



Patterns can be made using 6", 8" or 12" units in Rock Face, Travertina, Mammoth Stone™, Ultra-Fine, Burnished, Polished, Brushhammered and Bushhammered. Patterns A, B and C can be made using 8" Stone Mason units.

BOND PATTERNS



Pattern F Unit Sizes: 35/8 x 75/8 x 75/8 35/8 x 75/8 x 155/8 35/8 x 75/8 x 235/8 35/8 x 155/8 x 155/8

Pattern G
Unit Sizes:
35/8 x 75/8 x 75/8
35/8 x 75/8 x 155/8
35/8 x 75/8 x 235/8
35/8 x 155/8 x 155/8
*35/8 x 155/8 x 235/8

Pattern H Unit Sizes: 3⁵/₈ x 3⁵/₈ x 15⁵/₈ 3⁵/₈ x 7⁵/₈ x 7⁵/₈ 3⁵/₈ x 7⁵/₈ x 15⁵/₈ 3⁵/₈ x 7⁵/₈ x 23⁵/₈ 3⁵/₈ x 11⁵/₈ x 23⁵/₈

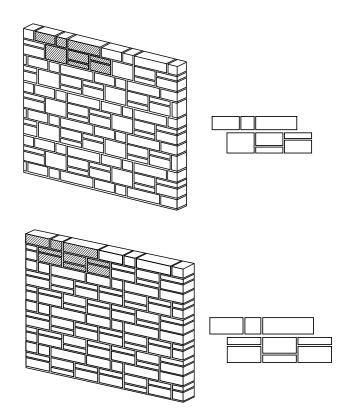
Pattern I Unit Sizes: 35/8 x 35/8 x 155/8 35/8 x 75/8 x 115/8 35/8 x 75/8 x 155/8 35/8 x 75/8 x 235/8 35/8 x 115/8 x 155/8 35/8 x 115/8 x 235/8

Patterns can be made using 6", 8" or 12" units in Rock Face, Travertina, Mammoth StoneTM, Ultra-Fine, Burnished, Polished, Brushhammered and Bushhammered.

AMCON

35

BOND PATTERNS



Pattern J Unit Sizes: 35/8 x 35/8 x 155/8 35/8 x 75/8 x 75/8 35/8 x 75/8 x 155/8 35/8 x 75/8 x 235/8 35/8 x 115/8 x 155/8

Pattern K Unit Sizes: 35/8 x 35/8 x 155/8 35/8 x 75/8 x 75/8 35/8 x 75/8 x 155/8 35/8 x 75/8 x 235/8

Patterns can be made using 6", 8" or 12" units in Rock Face, Travertina, Mammoth Stone™, Ultra-Fine, Burnished, Polished, Brushhammered and Bushhammered.

PRODUCT GLOSSARY

CMU

Concrete Masonry Unit (CMU) is a concrete block manufactured on a block machine to standardized sizes and used in building construction. Available in a wide variety of shapes, colors, textures, and sizes for flexibility in architectural design.

BURNISHED

For load-bearing or veneer applications, the natural beauty of exposed, ground aggregate in Amcon's burnished CMUs make them and excellent choice where smart appearance and durability are important.

ROCK FACE

For load-bearing or veneer applications, the full face split of Amcon's rock face CMUs are available in a wide range of sizes and colors with a variety of fittings and accent pieces.

BRUSHHAMMERED

The BrushHammered Architectural Series offers a texture reminiscent of washed river rocks, showcasing aggregates with a soft, tactile feel, ideal for interior and exterior accents.

BUSHHAMMERED

The BushHammered Architectural Series features a compact, pockmarked texture that provides a rugged, weathered look while maintaining the color and aggregate, making it perfect for exterior applications.

POLISHED

The Polished Architectural Series delivers a high-shine, light-reflective finish on CMU and precast products, offering a durable, cost-effective alternative to tile veneer.

MAMMOTH STONE® SERIES

Use separately or combine shapes in this innovative product line to simulate natural stone with ashlar patterns to create a signature look on your next project. This veneer-depth family of shapes is available in either a Rock Face or Burnished finish in any of the Amcon colors.

SPEC-BRIK® SERIES

Ideal for projects with "brick or better" requirements, Spec-Brik is available in a range of blends and combines the proven durability and economy of concrete masonry with the rich traditional beauty of brick in a full depth structural or veneer system.

STONE MASON™ SERIES

Experience the timeless appearance and texture of authentic, hand-dressed, natural stone with the strength and economy of a CMU. The Stone Mason Series is available in either an 8" full depth unit or in a 4 piece random pattern veneer system and is ideal for communities with "brick or better" requirements.

TRAVERTINA™ SERIES

Features a unique, multi-dimensional burnished, recessed facial texture similar to natural travertine stone, but with the economy of a CMU.

ULTRA-FINE

Contains a finer aggregate and more cement, along with premium-graded sands to create a smoother, finer, more satin-like texture on smooth-face architectural CMUs. Ultra-Fine Finish is available in any of the smooth-face shapes, including structural units, sills, and our Mammoth Stone® Series.

SUSTAINABLE SOLUTIONS

Amcon's Sustainable Solutions CMU mix designs are a proprietary blend of recycled materials used as a partial replacement for ordinary portland cement (OPC) and virgin sand aggregates (50% pre-consumer waste content) which are perfect for any project including LEED and projects incorporating Minnesota Sustainability Guidelines. These mix designs are available in most Amcon products.

ENVIROTROL™

Amcon's EnviroTrol™ curing system incorporates numerous cycles of high temperature, steam and carbon dioxide (CO2) to aggressively accelerate the hydration process.

37

SPEC-THERMAL® HI-R H



High Performance Pre-Insulated Masonry

Hi-R The Hi-R H Wall System is a specially designed concrete masonry unit and individually molded insulation insert that provide industry best thermal performance in compliance with prevailing Codes and Standards. Hi-R The Hi-R H Masonry Unit has been designed to provide reduced thermal bridging even more than prior Hi-R designs. The block and the insulation are combined at the block manufacturing plant prior to delivery to the job site. The assembly provides a wall system capable of achieving higher thermal R-values than conventional masonry, while providing full Code-based load resistance. A Structural Design Guide is available upon request.

Insulation Inserts

Hi-R Hi-R H Inserts are made by Concrete Block Insulating Systems, Inc. from flame-retardant treated expandable polystyrene. Like all foamed plastics, good fire procedures must be followed during storage and installation. Inserts give off no toxic products of combustion, except carbon monoxide and carbon dioxide, concentrations of which are far less than those given off by equal volumes of more dense building construction products. Expandable polystyrene contains no fluorocarbons and no formaldehyde.

Masonry Units

Hi-R H Masonry Units are available in precision faced and architectural decorative faced units. Units are available in 12 inch widths with nominal 8 inch x 16 inch face dimensions. Check for availability in your region.

Applicable Standards

- ASTM C 578, Type X, replacing Federal Specifications HH-I-524C.
 Specification for Rigid Cellular Polystyrene Thermal Insulation.
- ASTM C 90 Standard Specification for Load-bearing Concrete Masonry Units.

THERMAL PROPERTIES:

The Values below are for Pre-insulated Hi-R H Masonry Units. The Thermal Properties tables show the thermal resistance (Rt), including inside and outside air surface resistances of 0.68 and 0.17 h*ft2-°F/BTU, respectively, and the U-Factors for the various densities of concrete masonry units indicated. U-Factors are based on conventional 3/8" Mortar Joint Construction. U-Factor units are Btu/hr/sqft/Deg.F. The results below are calculated based on the results of a third party thermal analysis that was completed making use of the Hot Box Test Data from three accredited laboratory services. A complete Engineering Report dated November 20, 1996, including Addendum Added Nov. 1, 2002, is available upon request. It covers the thermal values of the Hi-R Masonry Wall System.

R-Values and U-Factors for HI-R and HI-R-H Masonry Units

Product (grouted cells)		Density (pounds per cubic foot)								
,	95	105	115	125	135					
HI-R Two Webs, 2.5 inch insert 8-8-16*	R-10.00 U-0.10	R-9.07 U-0.110	R-8.18 U-0.122	R-7.36 U-0.136	R-6.59 U-0.152					
HI-R Two Webs, 2.5 inch insert 10-8-16	R-11.82 U-0.085	R-10.82 U-0.092	R-9.85 U-0.10	R-8.94 U-0.11	R-8.08 U-0.124					
HI-R and HI-R Half High Two Webs, 2.5 inch insert 12-8-16/12-4-16	R-12.58 U-0.079	R-11.56 U-0.086	R-10.57 U-0.095	R-9.62 U-0.104	R-8.72 U-0.115					
HI-R-H One Web, 3.5 inch insert 10-8-16**	R-15.11 U-0.066	R-13.70 U-0.073	R-12.57 U-0.079	R-11.37 U-0.088	R-10.17 U-0.098					
HI-R-H One Web, 3.5 inch insert 12-8-16	R-16.32 U-0.061	R-14.98 U-0.067	R-13.74 U-0.073	R-12.50 U-0.080	R-11.25 U-0.089					
HI-R-H One Web, 4 inch insert 12-8-16	R-17.56 0.057	R-16.12 U-0.062	R-14.78 U-0.068	R-13.45 U-0.074	R-12.11 U-0.083					
HI-R-H Half High										

^{* 8-8-16} HI-R typically is not specified currently. The groutable space is very restricted

* Wall Type 1: Hi-R H Wall System only; **Hi-R, Hi R H Units with fully grouted cells** (125 lb./ft³ density grout).

R-17.87 U-0.056

- ** Wall Type 2: Hi-R H Wall System, Hi-R, Hi R H Units with fully grouted cells (125 lb./ft³ density grout); 1/2 inch gypsum board on furring strips.
- *** Wall Type 3: Hi-R H Wall System, Hi-R, Hi R H Units with fully grouted cells (125 lb./ft³ density grout); 1/2 inch foil-backed gypsum board on furring strips.

R-16.40

R-15.04

R-13.69

R-12.32

38

One Web. 4 inch insert

^{**} check with your local CPG representative; 10" version has regional availability only.

Spec-Thermal®





Korfil Hi-R

The Hi-R Concrete Masonry Unit is specifically designed to minimize thermal bridging and includes a factory-installed insulated insert made of expandable polystyrene.



Korfil Hi-R H

The Hi-R H Wall System is a specially designed concrete masonry unit and individually molded insulation insert that provide industry best thermal performance in compliance with prevailing Codes and Standards.



Spec-Brik Hi-R

The Spec-Brik® Hi-R Wall System combines the SPEC-BRIK color blends with the thermal performance of the Korfil Hi-R. Available in 4" or 8" (Jumbo) nominal heights.





39

LOCATIONS

Corporate Headquarters 2025 Centre Pointe Blvd • Mendota Heights, MN 55120 651-688-9116

www.amconconcreteproducts.com



Annandale, MN Gray Block

Precast Products

Fergus Falls, MN

Architectural Block & Gray Block

Harrisburg, SD

Architectural Block & Gray Block Hardscapes Products Medford, MN

Architectural Block & Gray Block

Mendota Heights, MN

Corporate Office

Rapid City, SD (TCC)

Architectural Block & Gray Block Hardscapes Products St. Cloud, MN

Architectural Block & Gray Block

St. Joseph, MN

Gray Block Hardscapes Precast

Amcon Concrete Products Supports and is a Proud Member of the following Associations:















