

Redi-Rock Freestanding Straight Blocks

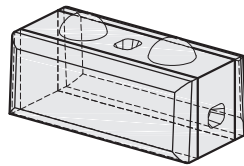
The Redi-Rock Freestanding wall units are machine-placed, wet-cast, precast modular block units manufactured from first-purpose, non-reconstituted concrete and intended to be used exclusively or in combination with dry-stacked modular retaining wall blocks. These units are manufactured from structural-grade concrete mixes in accordance with ASTM C94 or ASTM C685 that produce a finished unit with excellent resistance to freeze-thaw, deicing chemical exposure, and submerged conditions in both fresh water and salt water applications. All Redi-Rock products are manufactured and distributed through an international network of individually-owned, licensed precast concrete manufacturers.

DIMENSIONAL PROPERTIES

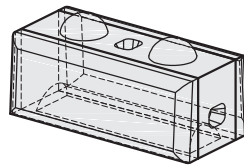
DIMENSIONS ⁽¹⁾				
HEIGHT: 18 ± 3/16 (457 ± 5)	LENGTH: 46 1/8 ± 1/2 (1172 ± 13)		WIDTH: ± 24 (610) LEDGESTONE / COBBLESTONE, ± 23 (584) LIMESTONE	
CONCRETE VOLUME	BOTTOM	MIDDLE	TOP	GARDEN TOP
LIMESTONE/COBBLESTONE FACE	±10.65 ft ³ (0.302 m ³)	±9.84 ft ³ (0.279 m ³)	±9.61 ft ³ (0.272 m ³)	±7.35 ft ³ (0.208 m ³)
LEDGESTONE FACE	±9.66 ft ³ (0.273 m ³)	±8.84 ft ³ (0.250 m ³)	±8.62 ft ³ (0.244 m ³)	±6.35 ft ³ (0.180 m ³)
SHIPPING/HANDLING WEIGHT ⁽²⁾	BOTTOM	MIDDLE	TOP	GARDEN TOP
LIMESTONE/COBBLESTONE FACE	± 1523 lb (691 kg)	± 1407 lb (638 kg)	± 1375 lb (623 kg)	± 1050 lb (476 kg)
LEDGESTONE FACE	± 1381 lb (626 kg)	± 1264 lb (573 kg)	± 1232 lb (559 kg)	± 908 lb (412 kg)

⁽¹⁾ All dimensions are inches (mm).

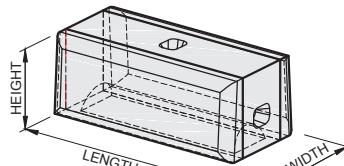
⁽²⁾ Weight shown is based on an assumed concrete unit weight of 143 lb/ft³ (2291 kg/m³). Actual weights will vary.



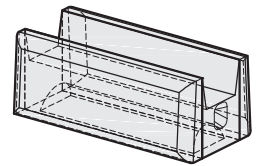
BOTTOM



MIDDLE



TOP



GARDEN TOP

CONCRETE MIX PROPERTIES ⁽²⁾

FREEZE THAW EXPOSURE CLASS ⁽⁴⁾	MINIMUM 28 DAY COMPRESSIVE STRENGTH ⁽⁵⁾	MAXIMUM WATER CEMENT RATIO	NOMINAL MAXIMUM AGGREGATE SIZE	AGGREGATE CLASS DESIGNATION ⁽⁶⁾	AIR CONTENT ⁽⁷⁾
MODERATE	4,000 psi (27.6 MPa)	0.45	1 inch (25 mm)	3M	4.5% ± 1.5%
SEVERE	4,000 psi (27.6 MPa)	0.45	1 inch (25 mm)	3S	6.0% ± 1.5%
VERY SEVERE	4,500 psi (30.0 MPa)	0.40	1 inch (25 mm)	4S	6.0% ± 1.5%
MAXIMUM WATER-SOLUBLE CHLORIDE ION (Cl ⁻) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENT ⁽⁸⁾					0.015
MAXIMUM CHLORIDE AS Cl ⁻ CONCENTRATION IN MIXING WATER, PARTS PER MILLION					1000
MAXIMUM PERCENTAGE OF TOTAL CEMENTITIOUS MATERIALS BY WEIGHT ⁽⁹⁾ (VERY SEVERE EXPOSURE CLASS ONLY)					
FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618					25
SLAG CONFORMING TO ASTM C989					50
SILICA FUME CONFORMING TO ASTM C1240					10
TOTAL OF FLY ASH OR OTHER POZZOLANS, SLAG, AND SILICA FUME ⁽¹⁰⁾					50
TOTAL OF FLY ASH OR OTHER POZZOLANS AND SILICA FUME ⁽¹⁰⁾					35

⁽³⁾ Concrete mix properties are in general accordance with ACI 318 durability requirements. Research has shown that concrete manufactured to these standards demonstrates good durability and performance. When these requirements are followed, specific freeze-thaw testing of the concrete is typically NOT required.

⁽⁴⁾ Exposure class is as described in ACI 318. "MODERATE" describes concrete that is exposed to freezing and thawing cycles and occasional exposure to moisture. "SEVERE" describes concrete that is exposed to freezing and thawing cycles and in continuous contact with moisture. "VERY SEVERE" describes concrete that is exposed to freezing and thawing cycles and in continuous contact with moisture and exposed to deicing chemicals. Exposure class should be specified by owner/purchaser prior to order placement. Longer lead times may be required for block units manufactured for "severe" and "very severe" exposure classes.

⁽⁵⁾ Test method ASTM C39.

⁽⁶⁾ Defined in ASTM C33 Table 3 *Limits for Deleterious Substances and Physical Property Requirements of Coarse Aggregate for Concrete*.

⁽⁷⁾ Test method ASTM C231.

⁽⁸⁾ Test method ASTM C1218 at age between 28 and 42 days.

⁽⁹⁾ The total cementitious material also includes ASTM C150, C595, C845, and C1157 cement. The maximum percentages shall include:

- (a) Fly ash or other pozzolans in type IP, blended cement, ASTM C595, or ASTM C1157.
- (b) Slag used in the manufacture of an IS blended cement, ASTM C595, or ASTM C1157.
- (c) Silica fume, ASTM C1240, present in a blended cement.

⁽¹⁰⁾ Fly ash or other pozzolans and silica fume shall constitute no more than 25 and 10 percent, respectively, of the total weight of the cementitious materials.

Redi-Rock Freestanding Variable Radius Blocks

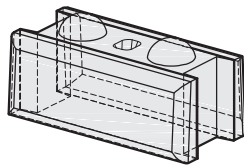
The Redi-Rock Freestanding wall units are machine-placed, wet-cast, precast modular block units manufactured from first-purpose, non-reconstituted concrete and intended to be used exclusively or in combination with dry-stacked modular retaining wall blocks. These units are manufactured from structural-grade concrete mixes in accordance with ASTM C94 or ASTM C685 that produce a finished unit with excellent resistance to freeze-thaw, deicing chemical exposure, and submerged conditions in both fresh water and salt water applications. All Redi-Rock products are manufactured and distributed through an international network of individually-owned, licensed precast concrete manufacturers.

DIMENSIONAL PROPERTIES

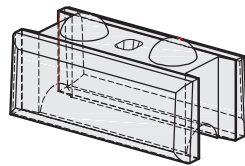
DIMENSIONS ⁽¹⁾				
HEIGHT: 18 ± 3/16 (457 ± 5)	LENGTH: 46 1/8 ± 1/2 (1172 ± 13)		WIDTH: ± 24 (610) LEDGESTONE / COBBLESTONE, ± 23 (584) LIMESTONE	
CONCRETE VOLUME	BOTTOM	MIDDLE	TOP	GARDEN TOP
LIMESTONE/COBBLESTONE FACE	±9.65 ft ³ (0.273 m ³)	±8.86 ft ³ (0.251 m ³)	±8.63 ft ³ (0.244 m ³)	±6.76 ft ³ (0.191 m ³)
LEDGESTONE FACE	±8.66 ft ³ (0.245 m ³)	±7.86 ft ³ (0.223 m ³)	±7.64 ft ³ (0.216 m ³)	±5.76 ft ³ (0.163 m ³)
SHIPPING/HANDLING WEIGHT ⁽²⁾	BOTTOM	MIDDLE	TOP	GARDEN TOP
LIMESTONE/COBBLESTONE FACE	± 1380 lb (626 kg)	± 1267 lb (574 kg)	± 1235 lb (560 kg)	± 967 lb (438 kg)
LEDGESTONE FACE	± 1238 lb (561 kg)	± 1124 lb (510 kg)	± 1092 lb (495 kg)	± 824 lb (374 kg)

⁽¹⁾ All dimensions are inches (mm).

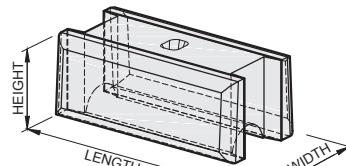
⁽²⁾ Weight shown is based on an assumed concrete unit weight of 143 lb/ft³ (2291 kg/m³). Actual weights will vary.



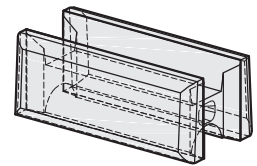
BOTTOM



MIDDLE



TOP



GARDEN TOP

CONCRETE MIX PROPERTIES ⁽²⁾

FREEZE THAW EXPOSURE CLASS ⁽⁴⁾	MINIMUM 28 DAY COMPRESSIVE STRENGTH ⁽⁵⁾	MAXIMUM WATER CEMENT RATIO	NOMINAL MAXIMUM AGGREGATE SIZE	AGGREGATE CLASS DESIGNATION ⁽⁶⁾	AIR CONTENT ⁽⁷⁾
MODERATE	4,000 psi (27.6 MPa)	0.45	1 inch (25 mm)	3M	4.5% ± 1.5%
SEVERE	4,000 psi (27.6 MPa)	0.45	1 inch (25 mm)	3S	6.0% ± 1.5%
VERY SEVERE	4,500 psi (30.0 MPa)	0.40	1 inch (25 mm)	4S	6.0% ± 1.5%
MAXIMUM WATER-SOLUBLE CHLORIDE ION (Cl ⁻) CONTENT IN CONCRETE, PERCENT BY WEIGHT OF CEMENT ⁽⁸⁾					0.015
MAXIMUM CHLORIDE AS Cl ⁻ CONCENTRATION IN MIXING WATER, PARTS PER MILLION					1000
MAXIMUM PERCENTAGE OF TOTAL CEMENTITIOUS MATERIALS BY WEIGHT ⁽⁹⁾ (VERY SEVERE EXPOSURE CLASS ONLY)					
FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618					25
SLAG CONFORMING TO ASTM C989					50
SILICA FUME CONFORMING TO ASTM C1240					10
TOTAL OF FLY ASH OR OTHER POZZOLANS, SLAG, AND SILICA FUME ⁽¹⁰⁾					50
TOTAL OF FLY ASH OR OTHER POZZOLANS AND SILICA FUME ⁽¹⁰⁾					35

⁽³⁾ Concrete mix properties are in general accordance with ACI 318 durability requirements. Research has shown that concrete manufactured to these standards demonstrates good durability and performance. When these requirements are followed, specific freeze-thaw testing of the concrete is typically NOT required.

⁽⁴⁾ Exposure class is as described in ACI 318. "MODERATE" describes concrete that is exposed to freezing and thawing cycles and occasional exposure to moisture. "SEVERE" describes concrete that is exposed to freezing and thawing cycles and in continuous contact with moisture. "VERY SEVERE" describes concrete that is exposed to freezing and thawing cycles and in continuous contact with moisture and exposed to deicing chemicals. Exposure class should be specified by owner/purchaser prior to order placement. Longer lead times may be required for block units manufactured for "severe" and "very severe" exposure classes.

⁽⁵⁾ Test method ASTM C39.

⁽⁶⁾ Defined in ASTM C33 Table 3 *Limits for Deleterious Substances and Physical Property Requirements of Coarse Aggregate for Concrete*.

⁽⁷⁾ Test method ASTM C231.

⁽⁸⁾ Test method ASTM C1218 at age between 28 and 42 days.

⁽⁹⁾ The total cementitious material also includes ASTM C150, C595, C845, and C1157 cement. The maximum percentages shall include:

- (a) Fly ash or other pozzolans in type IP, blended cement, ASTM C595, or ASTM C1157.
- (b) Slag used in the manufacture of an IS blended cement, ASTM C595, or ASTM C1157.
- (c) Silica fume, ASTM C1240, present in a blended cement.

⁽¹⁰⁾ Fly ash or other pozzolans and silica fume shall constitute no more than 25 and 10 percent, respectively, of the total weight of the cementitious materials.