

SECTION 04 73 00 – BREEZE BLOCKS

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DELETE ALL "SPECIFIER NOTES" WHEN EDITING THIS SECTION.

# GENERAL

## CONDITIONS AND REQUIREMENTS

### The General Conditions, Supplementary Conditions, and Division 01 – General Requirements apply.

## SECTION INCLUDES

## Section 04 73 00 – Manufactured Stone Masonry of the following types:

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SPECIFIER NOTES: DELETE OPTIONS THAT ARE NOT REQUIRED FOR THIS PROJECT.

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### ModuBloc Collection Breeze Blocks

* + - 1. Elementa Collection Breeze Blocks

## RELATED SECTIONS

### Section 04 27 00 – Multiple-Wythe Unit Masonry.

### Section 04 72 00 – Cast Stone Masonry.

## REFERENCES

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### Reference Standards

### Americans with Disabilities Act (ADA).

### ASTM International (ASTM):

#### ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus.

#### ASTM C1371: Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers.

#### ASTM D543: Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents,

#### ASTM D790: Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.

#### ASTM E903: Standard Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres.

#### ASTM E1980: Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces,

#### International Organization for Standardization (ISO):

#### ISO 9001:2015: Quality Management System Certificate Number FS 73051.

#### ISO 14001:2015: Environmental Management System Certificate Number EMS 670579.

#### Singapore Standards (SS):

#### SS485:2011: Specifications for Slip Resistance Classification of Public Pedestrian Surface Materials.

#### SS245:1995: Specifications for Water Absorption.

#### British Standards (BS):

#### BS476:Part 7:1997: Method of test to determine the Classification of the Surface Spread of Products.

## SUBMITTALS

### Product Data:

#### Submit manufacturer's shop drawings and maintenance instructions.

#### Manufacturer Information:

#### Provide overview literature describing the manufacturer’s overall scope of products.

#### Provide URL of the manufacturer’s website. The website must provide access to technical data, images, and general product information.

#### Provide manufacturers shop drawings.

#### Provide manufacturer’s guide specifications.

## QUALITY ASSURANCE

### Qualifications:

### Manufacturer: Minimum of 20 years experience in the manufacturing of reinforced stone architectural products.

### Sustainability Standards Certifications.

### LEED: USGBC (United States Green Building Council): MR Credit 4: Recycled Content under LEED® (Leadership in Energy and Environmental Design).

### Singapore Green Building Product Certification: Product Leader (SGBP 2019-2728) from Singapore Environmental Council.

### Singapore Green Label Certification: 022-016-0270 Eco-Friendly Building Material from Singapore Environmental Council.

### United States Environmental Protection Agency: US EPA 1311 Toxicity Characteristic Leaching Procedure (TCLP) – Specifications for testing of inorganic contaminants.

### Heavy Metals Testing Standards: Heavy Metals Test Analysis: Specifications for Testing of Hazardous Substances.

## DELIVERY, STORAGE AND HANDLING

### Delivery: Deliver materials to the installation site in manufacturer’s original packaging.

### Storage:

### Store in a clean, dry location until installation.

### If blocks are stored for prolonged periods on-site before use or installation, protect the blocks from sunlight and rain.

### Handling:

### Handle products in accordance with the manufacturer’s instructions.

### Blocks should not be dropped, thrown, or dragged.

## WARRANTY

* + 1. Manufacturer’s Warranty:
			1. Provide manufacturer’s standard limited warranty in effect at the date of purchase.
				1. Jonite® warrants that the Product is suitable for the purpose for which it was made for a period of one year from the date the commercial invoice and packing list issued by Jonite® is endorsed by the purchaser. For the avoidance of doubt, a purchaser means a person, firm, or corporation, jointly and severally if there is more than one, acquiring the Product from Jonite®.

# PRODUCTS

## MANUFACTURERS

### Specified Manufacturer: Jonite®. Allentown, Pennsylvania. 484-224-2972. Email: info@Jonite®.com. Web: [www.Jonite®.com](http://www.jonite.com).

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SPECIFIER NOTES: DELETE ONE OF THE FOLLOWING TWO PARAGRAPHS.

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### Substitutions: Not Permitted.

### Requests for approved substitutions will be considered in accordance with provisions specified in Section 01 62 00 – Product Options.

## DESCRIPTION

### Jonite® Breeze Blocks: Breeze blocks composed of reinforced composite stone. These breeze blocks can achieve green energy savings and improve ventilation. The design also brings an alternative to concrete breeze blocks. The natural stone appearance can be the entire design highlight or blended into other hardscape design elements. Jonite®’s breeze blocks have excellent load-bearing strength. The breeze blocks can be used for both ventilation and as a retaining wall for both external and internal applications. Customization can be done to express creativity and create something unique.

### Sustainability: Breeze blocks composed of at least 30 percent recycled materials.

### Core Materials: 95 percent agglomeration of natural stone substrates and mineral oxides formed under a proprietary vacuum and compression process. Composed of a proprietary structural polymer hybrid system of a heterogeneous blend.

### Physical:

#### Water Absorption: 0.09 percent.

#### Slip Resistance Classification: Very low notational contribution of the floor surface to the risk of slipping when wet.

#### Chemical Resistance: Achieved.

#### Rust and Corrosion: Resistant.

#### Finish: Natural stone matte.

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#### Colors: [Ivory white], [ Wacky white], [Rosy beige], [Desert beige], [Champagne yellow], [Terracotta red], [Teak brown], [Mocca brown], [Granite gray], [Ash gray], [Steel gray], [Slate gray], [Bamboo green], [Smoky green], [Charcoal black], [Ebony black], or [Color to be customized according to the sample submitted to the manufacturer].

### Structural and Mechanical Properties:

#### Tensile Strength: 8 to 25 Megapascal.

#### Compression Strength: 47.8 Megapascal.

#### Flexural Strength: 21.1 Megapascal.

#### Modulus of Elasticity: 20 to 40 Gigapascals.

#### Standard Density: 20 to 2400 Kilograms per cubic meter.

#### Elongation at Rupture: 3 percent.

#### Thermal Coefficient of Expansion: 106C-1.

### Reference Standards

#### Complies with ASTM B117-11: Salt resistance.

#### Complies with ASTM C1371-15: Determination of emittance.

#### Complies with ASTM D543:2014: Chemical resistance.

#### Complies with ASTM D790-92: Flexural properties.

#### Complies with ASTM E903-20: Solar absorptance, reflectance, and transmittance.

#### Complies with ASTM E1980: Solar Reflectance.

#### Complies with ISO 9001: 2015: Quality Management Systems.

#### Complies with ISO 14001:2015: Environmental Management Systems.

#### Complies with: SS245:1995 Appendix F - Water Absorption Test.

#### Complies with: SS485:2011: Slip Resistance.

#### Complies with: B BS476:Part 7:1997: Flame Spread Test

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SPECIFIER NOTES: COLLECTIONS, MATERIALS, AND PRODUCTS ARE INDICATED IN THE FOLLOWING PARAGRAPHS. OPTIONS WITHIN ARE INDICATED BY SQUARE BRACKETS. DELETE PARAGRAPHS AND OPTIONS NOT REQUIRED FOR THIS PROJECT.

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## MODUBLOC BREEZE BLOCK MATERIALS

### Product Description: ModuBloc Breeze Block manufactured by Jonite®: Discover limitless potential with ModuBloc: Quadra’s artful rectangular openings blend seamlessly with Bevel’s distinguished sloping profile. Unite these versatile breeze blocks to create custom configurations that elevate your architectural landscape.

### Product Basis of Design: ModuBloc Breeze Blocks 68100: Quadra-200.

#### Width: 200 millimeters (7.8 inches).

#### Length: 200 millimeters (7.8 inches).

#### Thickness: 75 millimeters (2.9 inches).

### Product Basis of Design: ModuBloc Breeze Blocks 68200: Bevel-200.

#### Width: 200 millimeters (7.8 inches).

#### Length: 200 millimeters (7.8 inches).

#### Thickness: 75 millimeters (2.9 inches).

## ELEMENTA BREEZE BLOCK MATERIALS

### Product Description: Elementa Breeze Block manufactured by Jonite®: Embrace the beauty of geometry with Elementa: Vista’s continuous double triangles and Nexus’s pristine, concentric circle enchant and inspire. Allow these singular, minimalist breeze blocks to command attention, amplifying the core of your design ethos.

### Product Basis of Design: Elementa Breeze Blocks 68300: Vista-250.

#### Width: 250 millimeters (9.8 inches).

#### Length: 200 millimeters (7.8 inches).

#### Thickness: 75 millimeters (2.9 inches).

### Product Basis of Design: Elementa Breeze Blocks 68400: Nexus-200.

#### Width: 200 millimeters (7.8 inches).

#### Length: 200 millimeters (7.8 inches).

#### Thickness: 75 millimeters (2.9 inches).

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### Embossed Insignia: Contact Jonite® for custom embossed insignia.

### Maintenance Accessories:

#### Repair Kit: Repair Kit is a proprietary epoxy putty filler for repair of gaps, cracks, and large chips.

#### Colors: [Standard color: \_\_\_\_] or [Custom color].

#### Perform repairs on gaps, cracks, and large chips in accordance with manufacturer’s instructions.

#### SealFix™ 103: A two-part epoxy mortar formulated for fixing Jonite® components such as L-Trimmers™. It has high strength bonding, is impermeable, chemical-resistant, and suitable for dry fixing.

#### Perform repairs on Jonite® components in accordance with manufacturer’s instructions.

#### ArmorFix™ 108: All Jonite® products are impregnated with a coat of ArmorFix™ 108 for protection, strength, and wear resistance.

#### Apply ArmorFix™ 108 in accordance with manufacturer’s instructions.

#### Kleansol™ 511: A proprietary algae and stain removal solution for Jonite® products.

#### Use Kleansol™ 511 in accordance with manufacturer’s instructions.

# EXECUTION

## EXAMINATION

### Examine Project conditions and completed Work and verify that the site is adequately prepared.

### Immediately correct all deficiencies and conditions which would cause improper execution of Work specified in this Section and subsequent Work.

### Proceeding with Work specified in this Section shall be interpreted to mean that all conditions were determined to be acceptable prior to start of Work.

## PREPARATION

### Clean the surface thoroughly before installation.

### Ensure the area is free of dirt and debris.

### Prepare the surface in accordance with manufacturer’s instructions.

## INSTALLATION

### Ensure the installation site is cleaned and prepared.

### Install in accordance with the manufacturer’s instructions and recommendations.

### Install blocks after danger of damage from construction traffic is passed.

### Install reinforcing rods on vertical/horizontal grooves when required.

### Ensure breeze blocks are installed flat and level.

## CLEANING

### Clean promptly after installation in accordance with the manufacturer’s instructions.

### Clear dust and debris frequently.

### Dislodge dirt and grime with a high-pressure water jet spray.

### Use soap-less cleaners, mild soap, or neutral pH detergent, clean water, and a non-metal scrub brush. Remove stains with Kleansol™ 511. Apply Armorfix™ 108 after the grate is dry.

### Do not use harsh cleaning materials like an acid wash as this can damage the grates.

### Repair or replace the product if damaged.

### PROTECTION

### Protect blocks in accordance with the manufacturer’s instructions.

### Perform regular visual checks of blocks. Ensure blocks are not structurally compromised and there are no visible cracks.

### Do not expose blocks to heavy cleaning chemicals.

### Do not permit blocks to contact construction debris, masonry, gravel, or organic material.

END OF SECTION