

SECTION 33 42 41 – TRENCH GRATES

SPECIFIER NOTE: THESE SPECIFICATIONS WERE CURRENT AT THE TIME OF PUBLICATION BUT ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTICE. PLEASE CONFIRM THE ACCURACY OF THESE SPECIFICATIONS WITH THE MANUFACTURER AND/OR DISTRIBUTOR PRIOR TO CONSTRUCTION OR INSTALLATION.

GUIDE SPECIFICATIONS:

THIS GUIDE SPECIFICATION IS WRITTEN ACCORDING TO THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI) FORMATS, INCLUDING MASTERFORMAT®, SECTIONFORMAT™, AND PAGEFORMAT™.

CAREFULLY REVIEW AND EDIT THIS SECTION TO MEET THE REQUIREMENTS OF THE PROJECT, LOCAL BUILDING CODE AND AUTHORITIES HAVING JURISDICTION. COORDINATE THIS SECTION WITH OTHER SPECIFICATION SECTIONS AND DRAWINGS.

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 33 42 41 – Gratings and Frames for Stormwater Drainage Inlets, trench grates of the following types:

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

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### Classic Collection

### Traverse Collection

### Tessera Collection

### Eden Collection

### Tidal Collection

### Zen Collection

## RELATED SECTIONS

### Section 03 30 00 – Cast-in-Place Concrete.

### Section 22 14 00 – Facility Storm Drainage.

### Section 22 14 26.19 – Facility Trench Drains.

### Section 31 56 26 – Bio-Polymer Trench Drain.

### Section 33 42 36 – Stormwater Trench Drains.

## REFERENCES

### Definitions

### Load Class: Selection of Appropriate Load Class According to BS EN 124:2015.

### Class A15: Strictly for pedestrians and cyclists. Recommended usage is for house drains, pool decks, courtyards, parks, walkways, and pedestrian areas.

### Class B125: For public pathways and car parks. Recommended usage is for slow-moving vehicles under 6614 pounds (3 tonnes) in wheel-load.

### Class C250: For curb-side grates in heavy vehicle parking areas. Recommended usage is for slow-moving vehicles under 12125 pounds (5.5 tonnes) in wheel-load.

### Class D400: For roads, hard-standing areas for fire access. Recommended usage is for slow-moving vehicles under 25353 pounds (11.5 tonnes) in wheel-load.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
SPECIFIER NOTES: RETAIN ONLY THOSE REFERENCES THAT ARE REQUIRED AFTER THE SECTION IS EDITED

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### Reference Standards

### 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,

#### The British Standards Institution (BSI):

#### BS EN 124:2015: Gully Tops and Manhole Tops for Vehicular and Pedestrian Areas.

#### BS EN 1433:2002: Drainage Channels for Vehicular and Pedestrian Areas.

#### 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.

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

### Handling:

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

### Use provided lifting hooks for lifting high-performance grates. Care must be taken when lifting and moving grates.

### Grates 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®. Singapore:5 Upper Aljunied Link Quartz Industrial Building #01-01 Singapore 367903Tel: 65-6383-3788United States:6081 Hamilton Blvd, Suite 600Allentown, Pennsylvania 18106Tel: 484-229-5172. Email: info@Jonite®.com. Web: [www.Jonite®.com](http://www.jonite.com).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SPECIFIER NOTES: DELETE ONE OF THE FOLLOWING TWO PARAGRAPHS.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### Substitutions: Not Permitted.

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

## DESCRIPTION

### Jonite® Trench Grates: Jonite® trench grates are made from a composite of natural stone and structural polymers, offering a customizable stone appearance in a wide range of colors. Each grate is formed using a proprietary precision thermo-vacuum process and reinforced with a steel frame coated for enhanced durability. Frame thicknesses are engineered to meet varying load requirements, from pedestrian areas to heavy vehicular zones. Compared to ferrous gratings, Jonite grates absorb less heat and function as electrical insulators. The stone composite is bonded using a structural polymer hybrid system for long-lasting performance in demanding environments.

### Sustainability: Trench grates composed of at least 30 percent recycled materials.

### Core Materials: Agglomeration of natural stone substrates and mineral oxides containing less than 1% crystalline silica by weight, ensuring compliance with safety regulations and reducing health risks.

### Reinforcements: Welded steel frame coated with a proprietary finish for enhanced durability and corrosion resistance, ensuring long-lasting performance under varying load conditions.

### 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.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SPECIFIER NOTES: DELETE COLORS NOT REQUIRED FOR THIS PROJECT,

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#### Colors: [Pearl Mist], [ Moonstone], [Soft Moss], [Amberwood], [Seafoam], [Canyon], [Dune], [Desert Glow], [Silver Sand], [Iron Cloud], [Fossil Grey], [Ashfall], [Graphite], [Nightshade], [Espresso], [Velvet 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 BS EN124.2015: Standard for Gully Tops and Manhole Tops.

#### Complies with BS EN1433:2002: Drainage Channels for Vehicular and Pedestrian Areas.

#### 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.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

## CLASSIC COLLECTION TRENCH GRATE MATERIALS

### Product Description: Clean lines, superior load strength, and an entire range of sizing options to choose from—there’s a reason these engineered stone trench grates have been with us since the beginning. Our Classic Collection features some of our best-selling trench grate covers. Fit for everything from pedestrian areas to robust fire engine zones, you can choose from our standard selection of colours and textures—or, personalise your space further with a custom trench grate design.

B. Product Basis of Design: Trench Grate CL150TG-LD20.

1. Load Class: A15

2. Width: 150 millimeters (5.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 20 millimeters (0.8 inches).

C. Product Basis of Design: Trench Grate CL200TG-LD20.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 20 millimeters (0.8 inches).

D. Product Basis of Design: Trench Grate CL250TG-LD25.

1. Load Class: A15

2. Width: 250 millimeters (9.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inches).

E. Product Basis of Design: Trench Grate CL300TG-LD25.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inches).

F. Product Basis of Design: Trench Grate CL350TG-LD25.

1. Load Class: A15

2. Width: 350 millimeters (13.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inches).

G. Product Basis of Design: Trench Grate CL400TG-LD35.

1. Load Class: A15

2. Width: 400 millimeters (15.7 inches).

3. Length: 500 millimeters (19.7 inches).

4. Thickness: 35 millimeters (1.4 inches).

H. Product Basis of Design: Trench Grate CL500TG-LD35.

1. Load Class: A15

2. Width: 500 millimeters (19.7 inches).

3. Length: 400 millimeters (15.7 inches).

4. Thickness: 35 millimeters (1.4 inches).

I. Product Basis of Design: Trench Grate CL200TG-HD25.

1. Load Class: B125

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inches).

J. Product Basis of Design: Trench Grate CL300TG-HD35.

1. Load Class: B125

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 35 millimeters (1.4 inches).

K. Product Basis of Design: Trench Grate CL400TG-HD50.

1. Load Class: B125

2. Width: 400 millimeters (15.7 inches).

3. Length: 500 millimeters (19.7 inches).

4. Thickness: 50 millimeters (2.0 inches).

L. Product Basis of Design: Trench Grate CL300TG-EHD35.

1. Load Class: C250

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 35 millimeters (1.4 inches).

M. Product Basis of Design: Trench Grate CL400TG-EHD50.

1. Load Class: C250

2. Width: 400 millimeters (15.7 inches).

3. Length: 500 millimeters (19.7 inches).

4. Thickness: 50 millimeters (2.0 inches).

N. Product Basis of Design: Trench Grate CL500TG-EHD65.

1. Load Class: C250

2. Width: 500 millimeters (19.7 inches).

3. Length: 400 millimeters (15.7 inches).

4. Thickness: 65 millimeters (2.6 inches).

O. Product Basis of Design: Trench Grate CL300TG-UHD50.

1. Load Class: D400

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 50 millimeters (2.0 inches).

P. Product Basis of Design: Trench Grate CL400TG-UHD75.

1. Load Class: D400

2. Width: 400 millimeters (15.7 inches).

3. Length: 500 millimeters (19.7 inches).

4. Thickness: 75 millimeters (3.0 inches).

Q. Product Basis of Design: Trench Grate CL500TG-UHD75.

1. Load Class: D400

2. Width: 500 millimeters (19.7 inches).

3. Length: 400 millimeters (15.7 inches).

4. Thickness: 75 millimeters (3.0 inches).

R. Product Basis of Design: Heelguard Trench Grate CHG200TG-LD20.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 20 millimeters (0.8 inches).

S. Product Basis of Design: Heelguard Trench Grate CHG300TG-LD25.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inches).

## TRAVERSE COLLECTION TRENCH GRATE MATERIALS

### Product Description: Designed by Rudolph Schelling Webermann (RSW©), an award-winning German design consultancy, this Traverse Collection combines sleek lateral aesthetics with versatile patterning. Perfect for light-duty pedestrian applications, it offers both style and functionality for Barrier-Free Access spaces.

### Product Basis of Design: Trench Grate TRAV200TG-LD30.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 30 millimeters (1.2 inches).

### Product Basis of Design: Trench Grate TRAV300TG-LD30.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 30 millimeters (1.2 inches).

D. Product Basis of Design: Trench Grate TRAV300TG-HD35.

1. Load Class: B125

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 35 millimeters (1.4 inches).

E. Product Basis of Design: Trench Grate TRAV300TG-EHD50.

1. Load Class: C250

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 50 millimeters (2.0 inches).

F. Product Basis of Design: Trench Grate TRAV300TG-UHD60.

1. Load Class: D400

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 60 millimeters (2.4 inches).

## TESSERA COLLECTION TRENCH GRATE MATERIALS

### Product Description: Designed by Rudolph Schelling Webermann (RSW©), an award-winning German design consultancy, this collection features intricate geometric patterns inspired by Islamic art. Perfect for light-duty pedestrian spaces, it blends cultural heritage with modern functionality.

B. Product Basis of Design: Trench Grate TESS200TG-LD25.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inch).

C. Product Basis of Design: Trench Grate TESS300TG-LD30.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 30 millimeters (1.2 inches).

D. Product Basis of Design: Trench Grate TESS300TG-HD50.

1. Load Class: B125

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 50 millimeters (2.0 inches).

E. Product Basis of Design: Trench Grate TESS300TG-EHD65.

1. Load Class: C250

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 65 millimeters (2.6 inches).

F. Product Basis of Design: Trench Grate TESS300TG-UHD75.

1. Load Class: D400

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 75 millimeters (3.0 inches).

## EDEN COLLECTION TRENCH GRATE MATERIALS

### Product Description: By Rudolph Schelling Webermann (RSW©), an award-winning German consultancy, the Eden Collection merges organic leaf-inspired patterns with functionality. Ideal for light-duty pedestrian spaces, it adds a natural touch to urban landscapes.

B. Product Basis of Design: Trench Grate EDEN200TG-LD25.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inch).

C. Product Basis of Design: Trench Grate EDEN300TG-LD30.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 30 millimeters (1.2 inches).

D. Product Basis of Design: Trench Grate EDEN300TG-HD50.

1. Load Class: B125

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 50 millimeters (2.0 inches).

E. Product Basis of Design: Trench Grate EDEN300TG-EHD65.

1. Load Class: C250

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 65 millimeters (2.5 inches).

F. Product Basis of Design: Trench Grate EDEN300TG-UHD75.

1. Load Class: D400

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 75 millimeters (3.0 inches).

## TIDAL COLLECTION TRENCH GRATE MATERIALS

### Product Description: By Rudolph Schelling Webermann (RSW©), an award-winning German consultancy, the Tidal Collection blends fluid, wave-inspired patterns with practical functionality. Ideal for light-duty pedestrian applications, it brings a calming visual element to urban spaces.

B. Product Basis of Design: Trench Grate TIDAL200TG-LD25.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inch).

C. Product Basis of Design: Trench Grate TIDAL300TG-LD25.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inch).

D. Product Basis of Design: Trench Grate TIDAL300TG-HD35.

1. Load Class: B125

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 35 millimeters (1.4 inches).

## ZEN COLLECTION TRENCH GRATE MATERIALS

### Product Description: By Rudolph Schelling Webermann (RSW©), a renowned German consultancy, the Zen Collection blends the harmony of Zen garden patterns with functional versatility. Ideal for light-duty pedestrian spaces, it creates tranquil and dynamic designs.

B. Product Basis of Design: Trench Grate ZEN200TG-LD25.

1. Load Class: A15

2. Width: 200 millimeters (7.9 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 25 millimeters (1.0 inches).

C. Product Basis of Design: Trench Grate ZEN300TG-LD30.

1. Load Class: A15

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 30 millimeters (1.2 inches).

D. Product Basis of Design: Trench Grate ZEN300TG-HD40.

1. Load Class: B125

2. Width: 300 millimeters (11.8 inches).

3. Length: 600 millimeters (23.6 inches).

4. Thickness: 40 millimeters (1.6 inches).

## ACCESSORIES

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SPECIFIER NOTES: OPTIONAL ACCESSORIES ARE INDICATED IN THE FOLLOWING PARAGRAPHS. DELETE PARAGRAPHS NOT REQUIRED FOR THIS PROJECT.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

### 90 Degree Corner Grates manufactured by Jonite®: 90 Degree corner grates of materials and colors that match trench grate selection.

#### Classic Trench Corner Grate CNR-CL150TG-LD20.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL150TG-LD20.

#### Classic Trench Corner Grate CNR-CL200TG-LD20.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL200TG-LD20.

#### Classic Trench Corner Grate CNR-CL250TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL250TG-LD25.

#### Classic Trench Corner Grate CNR-CL300TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL300TG-LD25.

#### Classic Trench Corner Grate CNR-CL350TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL350TG-LD25.

#### Classic Trench Corner Grate CNR-CL400TG-LD35.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL400TG-LD35.

#### Classic Trench Corner Grate CNR-CL500TG-LD35.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate CL500TG-LD35.

#### Classic Heelguard Trench Corner Grate CNR-CHG200TG-LD20.

#### Load Class: A15.

#### Suitable For Use with: Heelguard Trench Grate CHG200TG-LD20.

#### Classic Heelguard Trench Corner Grate CNR-CHG300TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Heelguard Trench Grate CHG300TG-LD25.

#### Classic Trench HD Corner Grate CNR-CL300TG-HD35.

#### Load Class: B125.

#### Suitable For Use with: Trench Grate CL300TG-HD35.

#### Classic Trench HD Corner Grate CNR-CL400TG-HD50.

#### Load Class: B125.

#### Suitable For Use with: Trench Grate CL400TG-HD50.

#### Classic Trench HD Corner Grate CNR-CL500TG-HD50.

#### Load Class: B125.

#### Suitable For Use with: Trench Grate CL500TG-HD50.

#### Traverse Trench Corner Grate CNR-TRAV200TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate TRAV200TG-LD25.

#### Traverse Trench Corner Grate CNR-TRAV300TG-LD30.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate TRAV300TG-LD30.

#### Traverse Trench HD Corner Grate CNR-TRAV300TG-HD40.

#### Load Class: B125.

#### Suitable For Use with: Trench Grate TRAV300TG-HD40.

#### Tessera Trench Corner Grate CNR-TESS200TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate TESS200TG-LD25.

#### Tessera Trench Corner Grate CNR-TESS300TG-LD30.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate TESS300TG-LD30.

#### Tessera Trench HD Corner Grate CNR-TESS300TG-HD50.

#### Load Class: B125.

#### Suitable For Use with: Trench Grate TESS300TG-HD50.

#### Eden Trench Corner Grate CNR-EDEN200TG-LD25.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate EDEN200TG-LD25.

#### Eden Trench Corner Grate CNR-EDEN300TG-LD30.

#### Load Class: A15.

#### Suitable For Use with: Trench Grate EDEN300TG-LD30.

#### Eden Trench HD Corner Grate CNR-EDEN300TG-HD50.

#### Load Class: B125.

#### Suitable For Use with: Trench Grate EDEN300TG-HD50.

### Tile Strips manufactured by Jonite®: Jonite’s Tile-Strips™ offer a refined solution for enhancing trench grate installations. Designed to provide additional height or introduce a subtle aesthetic accent, these strips seamlessly integrate with existing grates for a cohesive and polished finish. Whether used for leveling or as a design enhancement, Tile-Strips ensure both functional precision and architectural elegance.

1. Product Basis of Design: Tile Strip TS600-10.

  a. Width: 50 millimeters (2 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 10 millimeters (0.4 inch).

### L-Trimmers™ manufactured by Jonite®: Blending form and function, Jonite’s L-Trimmers™ offer the ideal support for trench grates while elevating their visual appeal. Designed for a seamless finish, they integrate effortlessly with all Jonite grates to enhance durability and refinement.

1. Product Basis of Design: L-Trimmer LTRIM600TG-20.

  a. Width: 37 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 30 millimeters (1.2 inches).

2. Product Basis of Design: L-Trimmer LTRIM600TG-25.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 35 millimeters (1.4 inches).

3. Product Basis of Design: L-Trimmer LTRIM600TG-30.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 40 millimeters (1.6 inches).

4. Product Basis of Design: L-Trimmer LTRIM600TG-35.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 50 millimeters (2.0 inches).

5. Product Basis of Design: L-Trimmer LTRIM600TG-40.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 55 millimeters (2.2 inches).

6. Product Basis of Design: L-Trimmer LTRIM600TG-50.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 65 millimeters (2.5 inches).

7. Product Basis of Design: L-Trimmer LTRIM600TG-60.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 75 millimeters (3.0 inches).

8. Product Basis of Design: L-Trimmer LTRIM600TG-65.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 80 millimeters (3.1 inches).

9. Product Basis of Design: L-Trimmer LTRIM600TG-75.

  a. Width: 42 millimeters (1.6 inches).

  b. Length: 600 millimeters (23.6 inches).

  c. Thickness: 90 millimeters (3.5 inches).

### Grate Tiles™ manufactured by Jonite®: Designed for seamless integration, Jonite’s Grate Tiles™ are non-perforated solid slabs that match the material composition and color of Jonite grates. Ideal for filling irregular joints or odd drain ends, they ensure design continuity while maintaining structural consistency across installations.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SPECIFICATION CONSTRUCTION NOTES: LIGHT DUTY MODELS WILL BE CUT ON SITE BY INSTALLER. HEAVY DUTY MODELS WILL BE FACTORY CUT TO TEMPLATES ATTAINED FROM THE SITE BY THE INSTALLER.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

1. Product Basis of Design: Grate Tile GRT400TG-LD20.

  a. Load Class: LD (up to A15)

  b. Width: 400 millimeters (15.7 inches).

  c. Length: 400 millimeters (15.7 inches).

  d. Thickness: 20 millimeters (0.8 inch).

2. Product Basis of Design: Grate Tile GRT400TG-LD25.

  a. Load Class: LD (up to A15)

  b. Width: 400 millimeters (15.7 inches).

  c. Length: 400 millimeters (15.7 inches).

  d. Thickness: 25 millimeters (1 inch).

3. Product Basis of Design: Grate Tile GRT500TG-LD25.

  a. Load Class: LD (up to A15)

  b. Width: 500 millimeters (19.7 inches).

  c. Length: 500 millimeters (19.7 inches).

  d. Thickness: 25 millimeters (1 inch).

4. Product Basis of Design: Grate Tile GRT500TG-LD30.

  a. Load Class: LD (up to A15)

  b. Width: 500 millimeters (19.7 inches).

  c. Length: 500 millimeters (19.7 inches).

  d. Thickness: 30 millimeters (1.2 inches).

5. Product Basis of Design: Grate Tile GRT500TG-LD35.

  a. Load Class: LD (up to A15)

  b. Width: 500 millimeters (19.7 inches).

  c. Length: 500 millimeters (19.7 inches).

  d. Thickness: 35 millimeters (1.4 inches).

6. Product Basis of Design: Grate Tile GRT500TG-HD35.

  a. Load Class: HD (B125)

  b. Width: 500 millimeters (19.7 inches).

  c. Length: 500 millimeters (19.7 inches).

  d. Thickness: 35 millimeters (1.4 inches).

7. Product Basis of Design: Grate Tile GRT500TG-HD40.

  a. Load Class: HD (B125)

  b. Width: 500 millimeters (19.7 inches).

  c. Length: 500 millimeters (19.7 inches).

  d. Thickness: 40 millimeters (1.6 inches).

8. Product Basis of Design: Grate Tile GRT500TG-HD50.

  a. Load Class: HD (B125)

  b. Width: 500 millimeters (19.7 inches).

  c. Length: 500 millimeters (19.7 inches).

  d. Thickness: 50 millimeters (2.0 inches).

### 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.

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

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

#### Lifting Hooks: Recommended for lifting heavy-duty grates.

# 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 grates after danger of damage from construction traffic is passed.

## 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 neutral pH cleaners. 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 grates in accordance with the manufacturer’s instructions.

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

### Do not expose grates to:

### Heavy cleaning chemicals.

### Cement.

### Do not use grates as structural elements.

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

### Do not wash flooring with chemicals and permit waste to flow through grates.

### Cleaning Adjacent Floors:

### Remove gratings systematically to prevent confusion by stacking on raised timber or bricks.

### Place grates back only when floors are clean and dry.

### Ensure the drain shoulders and surrounding where grates will be put back into place are cleaned thoroughly.

END OF SECTION