

Poly-Grate™ II



Fully recycled

Fully recyclable

**Far less expensive
than metal**

Easier installation

Recycled Plastic Tree Grates

• Reduce Budget Expenditures • Reduce Installation Expenses • Reduce Annual Maintenance



Recycled

Why Specify Poly-Grate II?



Durable and Long-Lasting

Poly-Grate II is molded with carbon black UV inhibitors. This process prevents fading and preserves the grate's long-term structural strength.

A.D.A. Compliant

Poly-Grate II is specifically designed to comply with A.D.A. requirements. Small grate openings enable equal access under all circumstances.



Made in the USA from RECYCLED plastics.

Never Rusts - Never Needs Painting

Poly-Grate II will never corrode or leave rust streaks on the grate or surrounding pavement. Road salts will not change Poly-Grate II's appearance or structural integrity. Painting is never necessary since color is integrally molded throughout.

Easily Expanded

Poly-Grate II will accommodate tree growth for years to come. Expanding the tree opening can be done on-site with little effort or expense. A larger opening can be cut in minutes with any standard saw blade.



Earth Friendly

Poly-Grate II is made from 100% Post-consumer recycled HDPE. Further, Poly-Grate II can be recycled as #2 HDPE to make it a low-impact, sustainable building product.

Easy to Maintain

Poly-Grate II is light enough for a single worker to remove in a matter of minutes. Access to the tree pit for utility work or cleaning has never been easier. Poly-Grate II comes with unique tamper-resistant assembly bolts to join both halves and make Poly-Grate II an unlikely target for theft and vandalism.

Lightweight Easy to Install

- Less than 30 pounds per half
- Easily installed by one person
- No added labor costs or heavy equipment
- Halves are joined with a unique tamper-resistant bolt package



Saves on Time and Freight

Delivery of standard in-stock orders takes two to three weeks. Small orders are shipped UPS. Larger quantities are shipped by common carrier. Please allow additional time for custom colors.

Suggested Specifications

Part 1 - General

- 1.1 Work Included --
The scope of the work includes labor, materials, equipment and performance of all work required for installation of Poly-Grate II as suggested by manufacturer's drawings and installation procedures.
- 1.2 Work by Others --
Openings to receive grates are to be provided by others in accordance with instructions of tree grate manufacturer and are indicated on drawings and provisions of the specification.

Part 2 - Product

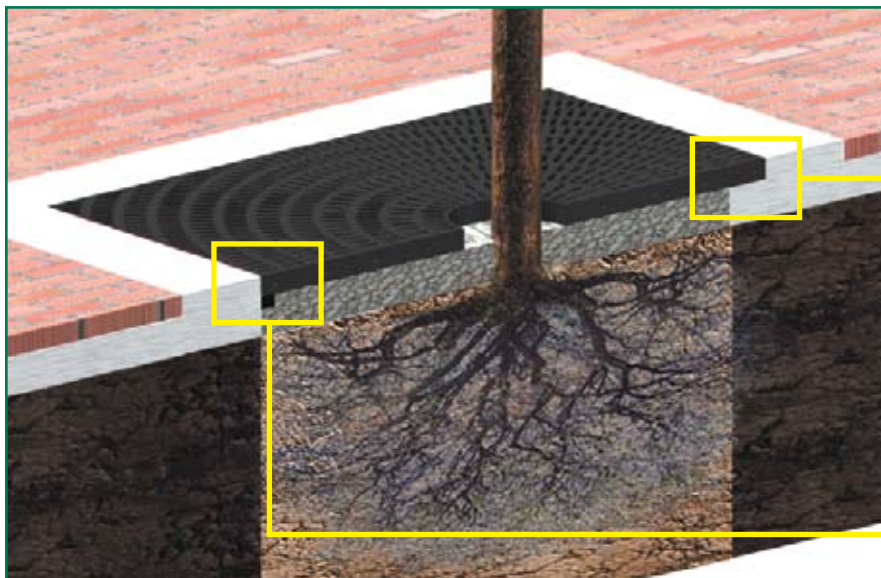
- 2.1 Tree Grates
- A. Manufacturer
Grates shall be Poly-Grate II, plastic tree grates as manufactured by Structural Plastics Corp., Holly, Michigan.
- B. Material
Grates shall be of high-density polyethylene resins conforming to ASTM D-638.
- C. Design
Grate pattern shall comply with A.D.A. requirements for equal access. Color, size, and configuration shall be specified by owner/architect.
- D. Finish
Grates shall be manufactured true to pattern, of uniform quality and size, and free from defects. Surface shall be smooth; free of sharp edges.
- 2.2 Hardware --
Fasteners (included)
Grate halves shall be joined together with tamper-resistant bolt package as provided by Structural Plastics Corp., or approved equal. Package to consist of (6) each #16 3/8" x 1-1/4" button head socket-cap screw, stainless; #16 3/8" Tuff Nut, brass; and (12) each 3/8" USS Flat washer, zinc.

The key to any successful landscape project is to budget for ongoing maintenance expenditures, such as grate expansion as your trees mature. For best results and longevity, Poly-Grate II requires that the space between the ground and tree grate bottom be filled with pea rock or other self-compacting aggregate for all installation applications. This will properly support the grate, prevent accumulation of debris under grate and protect close-to-surface root systems.

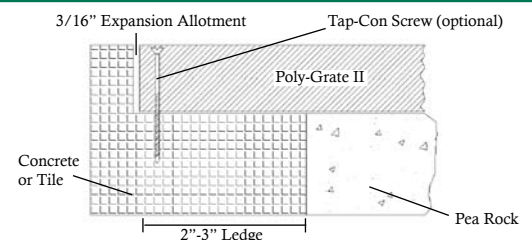
Part 3 - Execution

- 3.1 Inspection --
Proper site preparation and ongoing maintenance will determine performance.
- 3.2 Surface Conditions --
Examine concrete ledge, and/or existing tree pit to receive grate. Correct condition to comply with manufacturer's recommended installation procedure.
- 3.3 Installation
- A. Opening to Receive Grate
- Concrete Ledge Supported - New Installation (figure 3.3A1)
Concrete ledge shall be cast in size and configuration of specified tree grate model plus 3/8" expansion allotment. Ledge shall be 2 inches below concrete or tiled surface and extend inward 2 to 3 inches. Ledge must be level and free of bulges and slag.
 - Poly-Grate Frame Supported - Retro-fit Installation (figure 3.3A2)
The Poly-Grate Frame accessories will come complete with (4) 1 1/2" square pre-drilled plastic frames (42" length for use with 48" Poly-Grates, or 54" length for use with 60" Poly-Grates). Sidewalk preparation should allow 3/8" additional length per side to provide for grate expansion. Attach Poly-Grate Frame to sides of poured surface with Tap-Con screws (provided) or other approved concrete fastener. The Poly-Grate Frame support ledge should be placed 2" below the surface of the concrete.
- B. Support and Litter Prevention
Fill space from bottom of tree pit flush to bottom of tree grate with pea rock, crushed shale or other self-compacting aggregate.
- C. Join Grate Halves
Bring tree grate halves together around a tree at a height that allows easy access to underside. Join section at pre-formed holes using tamper-resistant bolt package provided by manufacturer, or approved equal. Lower grate into place.

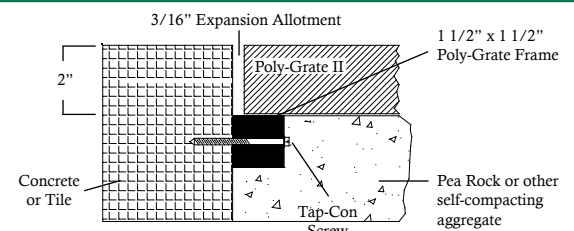
Test Data			
	ASTM Test	Units	Typical Values
Resin Properties:			
Density	D-1505	g/cc	0.957
Melt Index	D-1238	g/10 min	7.0
Molded Properties:			
Tensile Modulus (1% Secant)	D-638	psi	166000
Tensile at Yield	D-638	psi	4300
Elongation at Break	D-638	%	1400
Flexural Modulus	D-790	psi	194000



Installation with Concrete Surround (3.3A1)



Installation with Poly-Grate Frame (3.3A2)



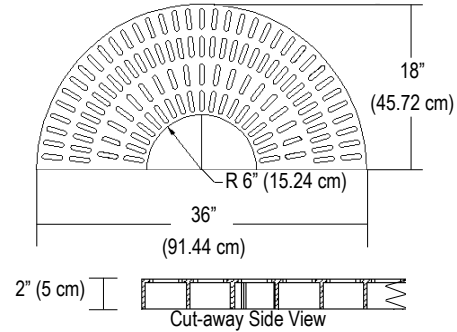
Product Information

All Detailed Drawings are Half Grates

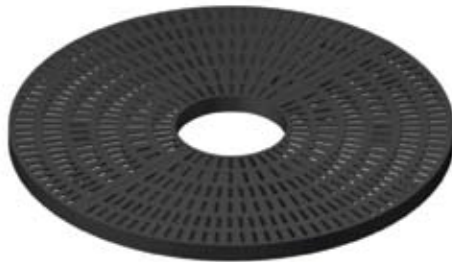
TRB33 - 3-Foot Round



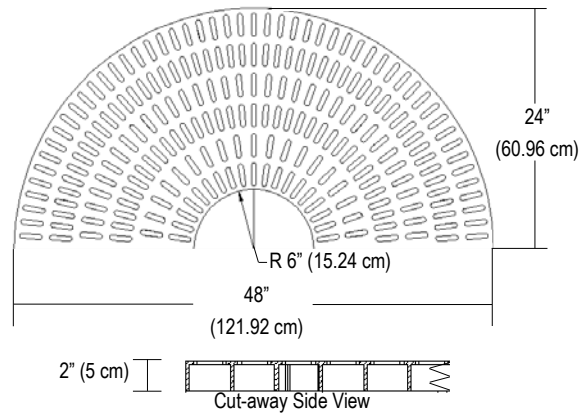
Weight - 19 lbs. (8.6 Kg)



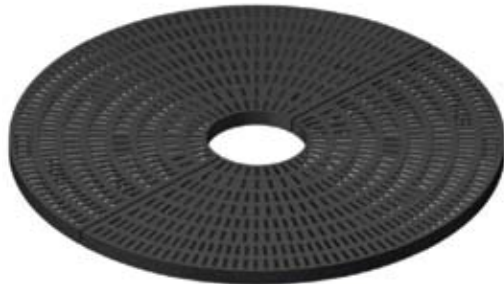
TRB44 - 4-Foot Round



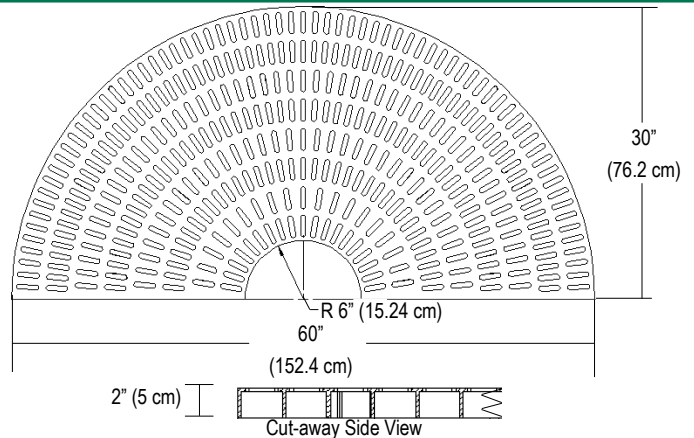
Weight - 28 lbs. (12.7 Kg)



TRB55 - 5-Foot Round



Weight - 45 lbs. (20.6 Kg)



Use Extensions for Larger Tree Pits

Poly-Grate II extensions provide the ability to increase the size of our 4' and 5' square models. Just bolt them on to double the length! Each extension kit comes complete with (2) extension grates and (2) tamper-resistant assembly kits.



Poly-Grate Frames

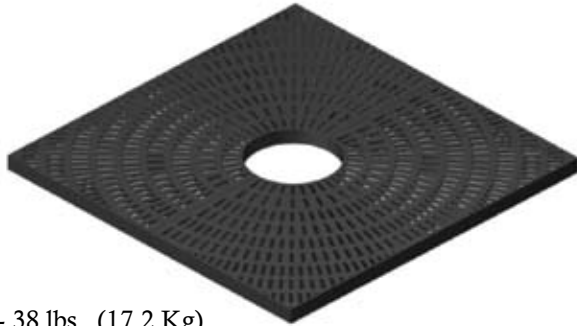
The easiest way to install Poly-Grate II



4-Foot Poly-Grate Frame	TGF44
5-Foot Poly-Grate Frame	TGF55

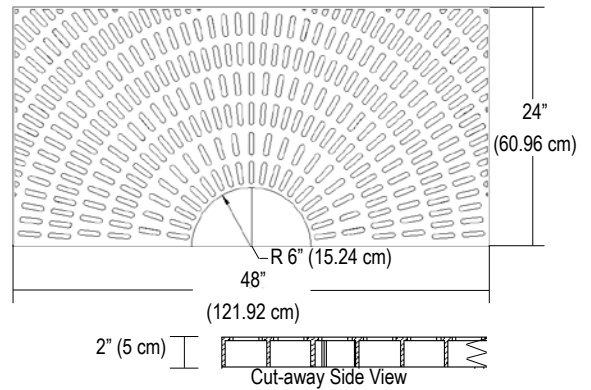
Product Information

TSB44 - 4-Foot Square

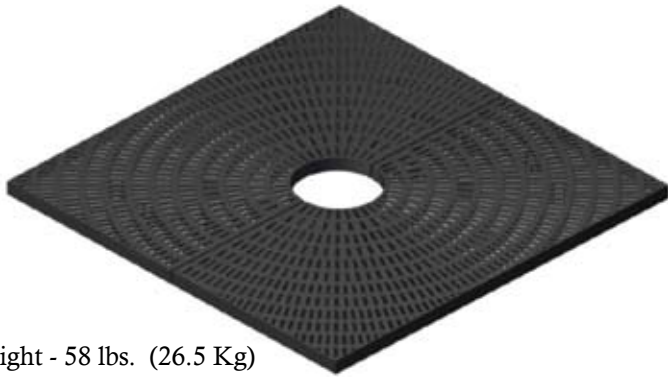


Weight - 38 lbs. (17.2 Kg)

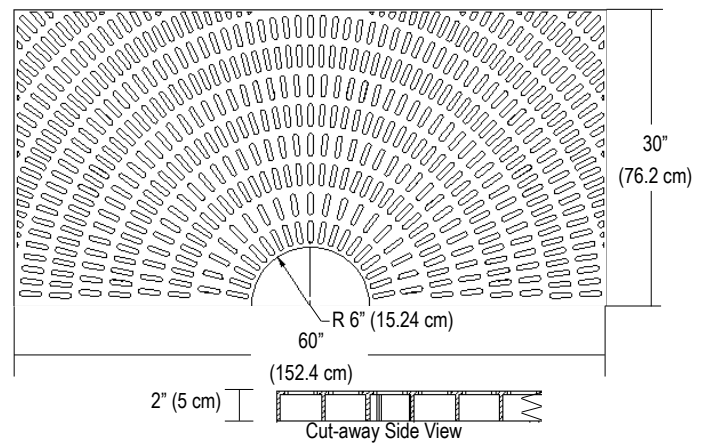
All Detailed Drawings are Half Grates



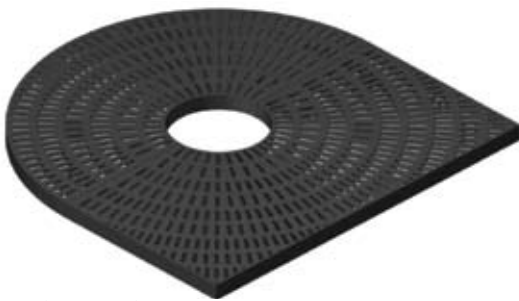
TSB55 - 5-Foot Square



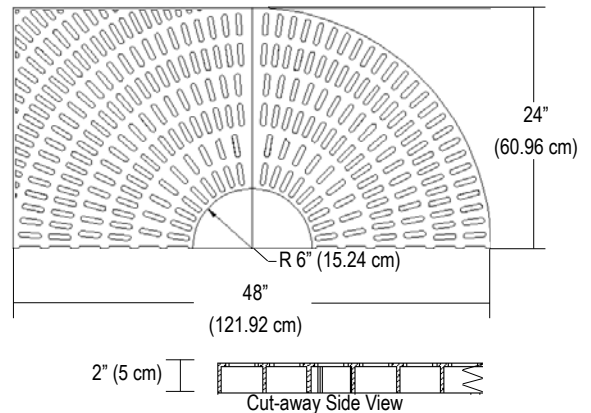
Weight - 58 lbs. (26.5 Kg)



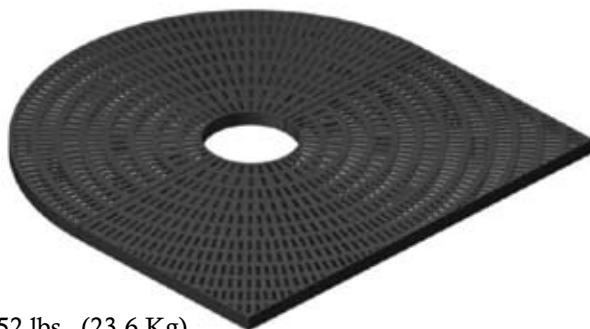
TSB44C - 4-Foot Square/Round Combo



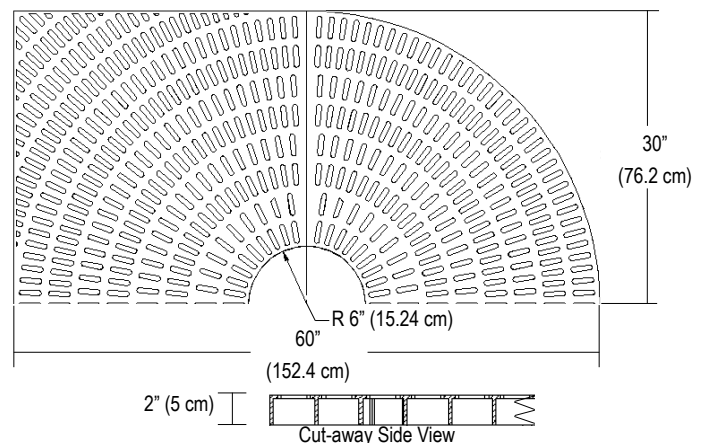
Weight - 33 lbs. (14.9 Kg)



TSB55C - 5-Foot Square/Round Combo



Weight - 52 lbs. (23.6 Kg)



Poly-Grate™ II

- 100% Post-Consumer Plastic
- Never Needs Painting
- ADA Compliant



- Never Rusts
- Easily Expanded
- Lightweight
- Durable
- Inexpensive
- Earth Friendly

• Reduce Budget Expenditures • Reduce Installation Expenses • Reduce Annual Maintenance