

TDS Revision Date (dd/mm/yyyy): 12/05/2023



# TECHNICAL DATA SHEET

**Update:** May 12, 2023

Make sure you have an up-to-date Technical Data Sheet on hand. Dial 1-866-212-1611 or (450) 624-1611 for Canada and the United States

**Description:** 

**GATOR BASE** is an evolution of foundation technology, which saves you time, labor and money. It is manufactured for pedestrian applications such as: patios, pool decks, walkways, 18" (45 cm) seating walls and fire pits, allowing you to clearly define your spaces and highlight the focal points of the dream staycation area. Designed with a tongue and grove system, **GATOR BASE** is easy to install. A single **GATOR BASE** panel is also equivalent to 130 kg (288 lb) of crushed stone, saving you a minimum of 6 in (15 cm) of additional excavation. The **GATOR BASE** drains water through channels and is made from lightweight, high density polypropylene. Environmentally friendly, **GATOR BASE** is 100% recyclable, extremely durable and **GATOR BASE** does not degrade in the soil when buried.

Ideal for:

- · Use for small or large pedestrian projects such as:
  - · Patios, sidewalks, walkways, paths and pool surrounds
  - 18 " (45 cm) seating walls and fire pits
  - · Concrete pavers, natural or wet cast stones
  - Porcelain tiles and slabs

Features:

- · Save 6" (15 cm) of additional excavation
- Save 6" (15 cm) of compacted crushed stone
- 50% savings on the costs of soil excavation
- · Save the cost of truck and driver on the road
- · Avoids costly unloading and dumping fees
- Reduces labor costs by a minimum of 20%
- Reduces wear and tear on machinery
- · Reduces overall installation time.
- Easy to use, install and transport
- · Reduces unnecessary excavation
- · Reduces installation time
- Project completed faster and easier
- Insulating capacity of R-3.6, which acts as a thermal blanket
- Gator Base panels help transfer dynamic and static loads
- Helps to combat the labor shortage

Take Note:

· For pedestrian use only.

## Where and when to use the Gator Base:

- · All projects with difficult or easy access
- · Up a hill
- Narrow workspaces
- Where speed of construction is critical
- Material storage is prohibited in streets.
- Restricted access areas
- Stairs
- Narrow alleys
- · No industrial equipment required



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For all of the scenarios shown in these diagrams below:

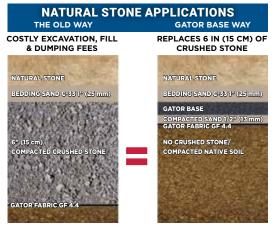
The pavers' or natural stones' height (1 1/8" to 3 1/8" [2,8 to 8 cm]) will determine the total excavation depth.



**DIAGRAM 1** 

Gator Base is designed to support up to 8 PSI or 1152 lb (522 kg) dynamic loads (in motion). Static loads (permanent charge) must be limited by using a safety factor 4:1 of 2 PSI or 288 lb (130 kg) per cubic foot of area including height. Seating wall or fire pit up to 18"

(45 cm) high and 12" (30 cm) depth and pavers can be installed on the Gator Base as long as all organic matter is removed under the



#### DIAGRAM 2

Adding 1" (25 mm) bedding sand layer (C-33 sand or ASTM No.9 stone) on top of the Gator Base is also an accepted installation method.



#### **DIAGRAM 3**

Overlay application
According to ICPI Tech Spec #10, to
allow for water evacuation, there must
be a 2" (5 cm) drainage hole filled with
1/4" or 3/8" (6 mm or 9 mm) clean
stone every 10' (3 m) starting at the
lowest point.

For an overlay application over a concrete base, use crushed stone to raise the final level.



#### **DIAGRAM 4**

Raising the level for a Gator Base application For a traditional application over compacted soil and Gator Fabric GF 4.4, use crushed stone to raise the final level.

## **SEATING WALLS, FIRE PITS OR PAVERS APPLICATIONS:**

When constructing a seating wall or fire pit, the Gator Base should extend the perimeter at least 12" (30 cm) beyond the outside edge of the blocks (diagram 5) and 6" (15 cm) when installing pavers (diagram 7). Secure the <u>Gator Edge</u> to the sides of the seating wall blocks or pavers with <u>Gator Base screws</u> at every second hole to prevent any lateral movement. If you are building a freestanding seating wall, the Gator Base should protrude 12" (30 cm) from all sides of the seating walls and secured front and back with Gator Edge and Gator Base Screws (diagram 6).



**Load Bearing:** 

Gator Base.

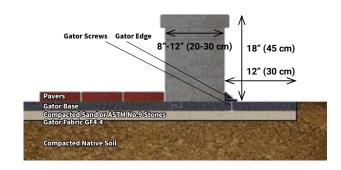


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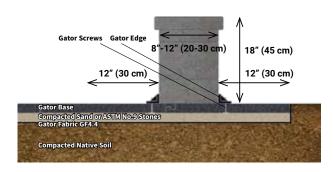


## FIXING GATOR EDGE FOR SEATING WALLS AND PAVERS ON GATOR BASE

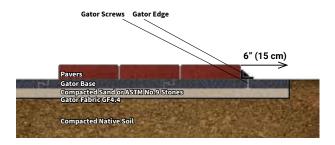
#### **SEAT WALL WITH PAVERS DIAGRAM 5**



#### FREE STANDING SEAT WALL **DIAGRAM 6**



#### **DIAGRAM 7**



## **GATOR BASE LOAD CAPACITY**

- Gator Base **dynamic** (in movement) load limit: 8 psi. or 1152 lb/sq.ft. (522 kg/30 cm<sup>2</sup>)
- Gator Base static (permanent) load limit (4:1): 2 psi. or 288 lb/sq.ft. (130 kg /30 cm²) of surface including height.
- Cubic value of concrete: 1 cubic foot is equivalent to 150 lb (68 kg).
- Seating wall or fire pit 18 in (45 cm) high x 12 in (30 cm) deep x 12 in (30 cm) wide =1.5 ft<sup>3</sup> (0.425 m<sup>3</sup>).
- 1.5 ft $^3$  x 150 lb / ft $^3$  of the wall = 225 lb (102 kg)





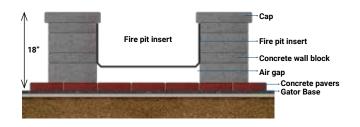
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#### **GATOR BASE FIRE PIT INSTALLATION OPTIONS**

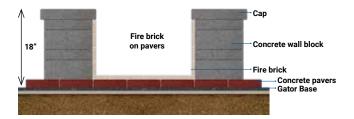
When building a fire pit, the important thing to remember is to provide a thermal barrier between the Gator Base and the heat source, as shown in the options below.

#### **DIAGRAMS 8**



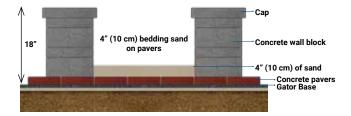
## Option 1

- · Regular Gator Base foundation (Diagram 1)
- Paver thickness ensuring 1st thermal barrier
- A minimum air gap of 4" (10 cm) under the fire bowl ensures a 2nd thermal barrier
- Metal fire bowl insert



## Option 2

- · Regular Gator Base foundation (Diagram 1)
- · Paver thickness ensuring 1st thermal barrier
- · Refractory brick 2nd thermal barrier on the sides and the base



## Option 3

- · Regular Gator Base foundation (Diagram 1)
- Paver thickness ensuring 1st thermal barrier
- 4" (10 cm) 2<sup>nd</sup> thermal barrier sand



#### Option 4

- Fire pit built directly on Gator Base foundation
- Thermal barrier created using 8" (20 cm) of sand over the **Gator Base**



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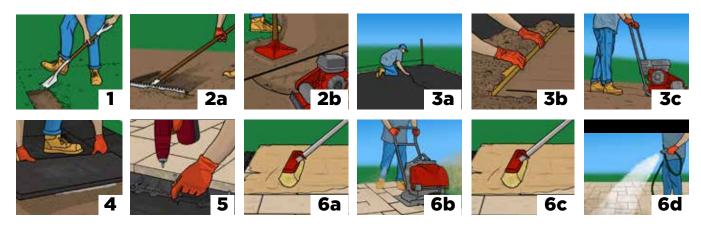


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#### **INSTALLATION INSTRUCTIONS:**

PLEASE FOLLOW ICPI TECH SPEC 2 & 9 SPECIFICATIONS FOR COMPACTION REGULATIONS



#### STEP 1 • Excavation for the Gator Base installation

Factors to consider when excavating - The total depth required will be determined by adding the thickness of the Gator Fabric 4.4, compacted sand or stone (ASTM No.9) (19mm [3/4 in])), Gator Base (19 mm [3/4 in]) and paver, slab, stone or porcelain tile. Excavate 15 cm (6 in) wider than the perimeter of the paved surface or 30 cm (12 in) when building a seating wall or fire pit. Use a shovel or excavator to complete the excavation. Before excavating, consult with local utilities to avoid damaging any buried pipes or wires.

#### STEP 2 · Leveling and compacting of the soil

A • After excavation, level the surface with a rake or shovel. Plan a 2% slope from any structure, especially a house. B • To compact the soil densely, use a vibrating plate or hand tamper in confined areas. The surface should be as smooth as possible; Using a pipe, check by rolling it over the compacted surface to check that there are no protrusions or hollows of more than 3/8" (1 cm). Using string, spikes and a level (attach the string to the spikes), proceed with the leveling in order to ensure a 2% slope. Once the ground leveling is complete, carry on to step 3.

## STEP 3 · Add Gator Fabric GF4.4 and compact the sand

A • Cover the excavated area and sides with Gator Fabric GF4.4. B • Spread an even layer of sand (3/4" [19 mm] thick) over the Gator Fabric GF4.4. The use of stone in the size of ASTM No.9 is also an accepted method of installation. No compaction is needed. To ensure the uniformity of the bi-axial thickness of the sand or the ASTM No. 9 stone, use 2 pipes of 3/4" (19 mm) spread 4 ft to 6 ft (1.2 to 1.8 m) apart on the Gator Fabric GF4.4. Spread the sand or stone between the pipes. Using a plank, level the fill against the pipes. After removing the pipes, fill in the hollows. Keep in mind that the sand leveling and compaction step are the last step before installing the Gator Base. C • Using a hand tamper or vibrating plate, moisten the sand and compact the filling sand to a thickness of 1/2" (13 mm). The surface should be smooth. This will represent the mirror of the finished product.

## STEP 4 · Install the Gator Base

Cover the entire excavated surface with the **Gator Base** (the excavation and the Gator Base should be 6" [15 cm] wider on each sides of the final line of pavers or 12" (30 cm) for a seating wall or fire pit.) Lay the Gator Base units in an alternating (staggered) pattern and ensure they lock together perfectly, and remain stable while installing the selected stone or paver. With the help of a utility knife, eliminate visible curves or excess salient angles.

# STEP 5 · Install Pavers, Blocks and Gator Edge

Place the pavers or blocks (seat wall, fire pit) directly on the Gator Base according to the chosen pattern. (Adding a 1/2 in (13 mm) of bedding sand C-33 on to the surface of the Gator Base is also an accepted method for pavers.) Slide the pavers in place. Make sure the Gator Base protrudes 6" (15 cm) on either side of the paving area or 12" (30 cm) for your seating wall or fire pit (See Diagram 5-6-7). Install the **Gator Edge** on the **Gator Base**, firmly against the pavers or blocks. Thread a **Gator Base Screw** every second hole to maximize the lateral support provided by the Gator Edge. For a fire pit installation, follow the steps and options for installing a fire pit on Gator Base (Diagram 8).





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## **INSTALLATION INSTRUCTIONS: (CONT.)**

## STEP 6 • Applications of POLYBIND COMPLETE G2 (new paved surface)

A Spread the POLYBIND COMPLETE G2 using a hard-bristled broom. Make sure the joints are completely filled with POLYBIND COMPLETE G2. No other material should be in the joints. Leave a coat of POLYBIND COMPLETE G2 on the surface for better compaction and joint consolidation results from POLYBIND COMPLETE G2. • B Using a vibrating plate or roller, slide the POLYBIND COMPLETE G2 into the paver joints. It is recommended to use a rubber or urethane protective pad. A roller compactor is preferable in the case of slabs. Fill the paver joints up to 3 mm (1/8") from the top of the paver edge or 3 mm (1/8") below the chamfer. It is recommended to compact in alternating directions to prevent air bubbles or voids in the joints. Repeat steps A and B to make sure the joints are well filled and compacted. Filling narrow joints requires more care. • C Sweep excess POLYBIND COMPLETE G2 off the paved surface, first with a hard bristle broom, then with a soft bristle broom. Check that there is 3 mm (1/8 in) of the edge or 3 mm (1/8 in) under the chamfer of the POLYBIND COMPLETE G2 Polymeric Sand Pavers. • D Activate POLYBIND COMPLETE G2 by watering 3 m² (30 ft²) for 30 seconds, starting at the lowest point.



**GATOR BASE APPLICATION** 

# POLYBIND COMPLETE G2 application steps (existing paved surface)

If the **POLYBIND COMPLETE G2** replaces an existing joint material, the existing material must be completely removed from the joints and the pavers must be completely dry before applying the **POLYBIND COMPLETE G2**. Follow steps A through D of **POLYBIND COMPLETE G2** applications for new paved surface.

Material Type	Expanded Polypropylene (EPP)	
Material Thickness	(0.75 in) 19 mm	
Material Density	3.43 lb / cubic ft 55 grams / liter	
Part Format	Edge Interlocking Tongue & Groove	
Part Size	6 sq ft (0.55 sq.m.) per panel paver bearing surface	
Part Dimensions	Overall usable surface dimensions: 5.79 sq ft (0.54 sq.m.)	
Part Weight	1.32 lb (0.6 kg) per panel	
Tensile Strength	101.5 psi (699 kPa)	ISO 1798
Tensile Elongation	11%	ISO 1798
Vertical Permeability	>100 inches/hour 254 cm / hour	EN 12616
Thermal Expansion Per 1°C change	0.003 in / ft (0.25 mm / m)	ISO 4897
Compression Set-Static load (50% strain, 22hrs. 23°C after 24 hrs)	38%	ISO 1856c
Thermal Resistance R Value (per inch thickness)	3.6 per in (25 mm)	
Microbiological / Chemical Resistance Chemical resistance	No detrimental effects	







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**Thermal Thermal conductivity** 0.264 BTU-po/hr-pi<sup>2</sup>-180°C DIN 52612

**Properties:** Melting point 248-356°F (120-180°C) **Decomposition Temperature** >= 356°F (180°C)

 Flash point
 >= 392°F (200°C)
 ASTM D1929

 Ignition temperature
 > 360°F (182°C)
 ASTM D1929

**Dimensional stability at heat** <2% Linear size alterations after 4 days,

110°C; DIN ISO 2796

**Coverage Per Gator Base Unit:** 

**Total area** 24.25 in x 36.25 in= 6.1 sq.ft. / 61.5 cm x 92 cm= 0.566 sq.m. **Usable surface** 23.5 in x 35.5 in = 5.79 sq.ft. / 59.5 cm x 90 cm= 0.536 sq.m.

Packaging: Product Size Units per Pack Units per Pallet

**GATOR BASE** 61.5 cm x 92 cm 10 120

24.25 in x 36.25 in

#### **LIMITED WARRANTY:**

ALLIANCE DESIGNER PRODUCTS INC. cannot guarantee the result obtained since the company has no control over the preparation of the surface or the undersurface, or over the application of the product. If this product is shown to be defective, and provided that the product has been used in accordance with the directions for use and the surface and undersurface preparation guidelines mentioned above, ALLIANCE DESIGNER PRODUCTS INC. agrees to reimburse the purchase price. Proof of purchase will be required for all claims. DISCLAIMER OF LIABILITY: THE PARTIES AGREE THAT THE SOLE OBLIGATION OF ALLIANCE DESIGNER PRODUCTS INC. IS TO REFUND THE PURCHASE PRICE. IN NO EVENT SHALL ALLIANCE DESIGNER PRODUCTS INC. CANNOT BE HELD RESPONSIBLE FOR ANY OTHER DAMAGES OR COSTS, DIRECT OR INDIRECT. TO THE EXTENT PERMITTED BY LAW, ALLIANCE DESIGNER PRODUCTS INC. DISCLAIMS ANY IMPLIED WARRANTIES OF QUALITY OR THAT THE PRODUCT IS MERCHANTABILITY OR FIT FOR ITS PURPOSE.



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