



FLEXLOCK ULTRA FOR PAVING STONE JOINTS UP TO 2"

TDS Revision Date (dd/mm/yyyy): 26/11/2021

TECHNICAL DATA SHEET

Update: November 26, 2021
Make sure you have an updated data sheet on hand.
Canada and U.S. dial **1-855-847-7767** or (450) 624-1611

Description: **FLEXLOCK ULTRA** is a unique mixture of polymer binders and calibrated sand available in Sandy Beige and Graphite Grey. The installation of **FLEXLOCK ULTRA** polymeric sand is almost identical to using regular paver joint sand except for the application of water. Once **FLEXLOCK ULTRA** sets, it becomes very firm and locks between the paver joints while still retaining flexibility and providing a long lasting, durable jointing material. **FLEXLOCK ULTRA** is recommended for a variety of uses including pool decks, patios, footpaths, driveways, parking spaces, pavements etc.

- Features:**
- **Advanced Haze Free Technology**
 - Can be used for joints up to a maximum of 2 inches (5 cm)
 - For overlay, traditional, residential and commercial applications
 - For Traditional application, rain safe 1 hour after water activation
 - For Overlay application, rain safe 24 hours after water activation
 - ASTM C-144 gradation allows use in even the tightest joints
 - [OSHA silica crystalline compliant](#) (OSHA 29 CFR 1926.1153)
 - Can be used on false joint pavers
 - Works above 32°F (0°C)
 - Ideal for [Gator Base](#) panels
 - Helps prevent weeds and damage caused by burrowing insects.
 - Helps prevent erosion due to wind, rain, and freeze thaw cycles.
 - 15-year limited warranty
 - Waterproof bags: Lay bag flat on its back, so front of the bag is facing you. Intact pallets or bags can be stored outdoors.

Maintenance of paved surface: When maintaining the paver surface, apply [Gator Shampoo](#) to clean the entire paved surface including the paver joints. Wash, rinse and remove any residue by using a hose and a watering gun set to shower with the normal maximum water pressure from any residential or commercial building (typically 80 psi/550 kPa).

Clay pavers: If used on clay pavers make sure they are 100% dry. Clay pavers tend to hold moisture, which can prematurely activate the **FLEXLOCK ULTRA** while the polymeric sand is being spread over the paver surface, leaving a residue (always apply on a test area before using the **FLEXLOCK ULTRA** on clay pavers).

Moss: **FLEXLOCK ULTRA** will not cause nor prevent moss, mold or mildew. Moss, mold and mildew are caused by certain on site conditions including excess moisture, shade, absence of ventilation, inadequate cleaning or maintenance, presence of soil or other organic debris left on the product.

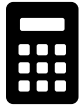


FLEXLOCK ULTRA FOR PAVING STONE JOINTS UP TO 2"

TDS Revision Date (dd/mm/yyyy): 26/11/2021

Coverage:

Quantity required depends on the shape and size of the concrete pavers as well as the width of the joints.



Access our online sand calculator

Per 50 lb bag (Paver 2-3/8" (6 cm) in height)	NARROW JOINTS	WIDE JOINTS
		1/8" to 3/8" (3-9 mm)
Sandy Beige & Graphite Grey	65-85 sq. ft. (7-7.9 sq.m.)	22-42 sq. ft. (2-3.9 sq.m.)

INFORMATION INSTALLATION NOTES

- A Always refer to the latest **FLEXLOCK ULTRA** [Technical Data Sheet \(TDS\)](#) at Flex-lock.com before installing **FLEXLOCK ULTRA**.
- B Pavers and slabs must be installed according to [ICPI Tech Spec #2](http://www.icpi.org) (www.icpi.org) before **FLEXLOCK ULTRA** installation. For Overlays ICPI recommends 2" (5 cm) diameter drainage holes spaced approximately 10 ft (3 m) apart and at the lowest elevations in the slab. Holes should be filled with 3/8" (9mm) stone and covered with a 1 foot x 1 foot (30 cm x 30 cm) patch of [Gator Fabric GF4.4](#). Drilled holes should allow any water entering the bedding layer to freely flow out.
- C Pavers' sides and top surfaces must be completely dry. Do not apply if the paver surface is damp or wet. The damp or wet surface will cause **FLEXLOCK ULTRA** to prematurely activate and will lead to the polymers sticking on the paver surface.
- D Do not apply if the paver joints are damp or wet. This will prevent the **FLEXLOCK ULTRA** from properly sliding into the joints and obtaining very densely packed joints, which is critical to the products performance.
- E Temperature must be above 32°F (0°C) with dry conditions (no rain for at least 1 hour) after installing **FLEXLOCK ULTRA** in a traditional application and (no rain for at least 24 hours) in overlay application.
- F For all paver surfaces, and particularly around in-ground pools there must be a slope of 1/8 inch (3 mm) per linear foot away from the edge of the pool, or structures to ensure optimal performance of the **FLEXLOCK ULTRA**.
- G For the pool coping units it is mandatory to use mortar in the joints. For the rest of the paver installation around the pool, you can use **FLEXLOCK ULTRA**.
- H Do not sweep **FLEXLOCK ULTRA** over asphalt.
- I **FLEXLOCK ULTRA** level, must be at least 1/8 inch (3 mm) below top of paver's surface or 1/8 inch (3 mm) below the chamfer or erosion may occur. The filled and cured polymeric sand joints should never be in direct contact with foot traffic or tires.
- J For textured or pre-finished surfaces, we recommend to remove all the sand from the paver or slab surface prior to using the plate or roller compactor.

Please note:

All pavers must be completely interlocked for vehicular and pedestrian use. If pavers are fanned they are not considered interlocked. **FLEXLOCK ULTRA** can be applied when pavers are installed directly on open graded aggregates that lock or choke themselves. This means the polymeric sand will not migrate through the voids. Do not apply **FLEXLOCK ULTRA** when the pavers are installed directly on aggregates with large voids.

THIS CROSS-SECTION REPRESENTS THE HEIGHT OF POLYMERIC SAND FOUND IN THE JOINTS



Maximum joint width for overlays 2" (5 cm)



PAVERS OR NATURAL STONES WITHOUT CHAMFER



PAVERS OR NATURAL STONES WITH CHAMFER

POLYMERIC SAND REQUIREMENTS

- Minimum joint width: 1/8" (3 mm)
- Maximum joint width: 2" (5 cm)
- Maximum overlay joint width: 2" (5 cm)
- Minimum joint depth: 1 1/2" (38 mm)



FLEXLOCK ULTRA FOR PAVING STONE JOINTS UP TO 2"

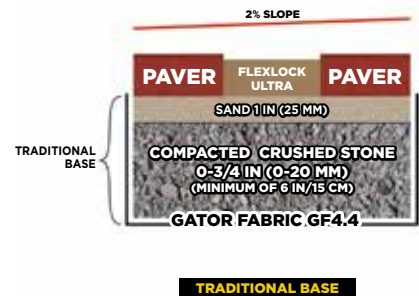
TDS Revision Date (dd/mm/yyyy): 26/11/2021

REQUIRED SUB-SURFACE PREPARATION AND FOUNDATION OPTIONS

FLEXLOCK ULTRA is recommended for a variety of uses including pool decks, patios, footpaths, driveways, parking spaces, pavements, etc. The concrete pavers must be installed on a traditional or overlay base system. (See diagrams).

1 Traditional base system:

- A minimum 2% top surface slope for proper water runoff
- **FLEXLOCK ULTRA** level, must be at least 1/8" (3 mm) below top of paver's surface or 1/8" (3 mm) below the chamfer
- Minimum joint width 1/8" (3 mm), Maximum 2" (5 cm)
- Minimum depth of joint 1 1/2" (38 mm)
- Layer of bedding sand maximum of 1" (25 mm)
- Layer of 6" (15 cm) thickness of 0- 3/4" (0-20 mm) compacted crushed stone
- For light traffic applications the pavers must be completely interlocked
C-33 sand or ASTM No. 9 stone can be used under pavers.



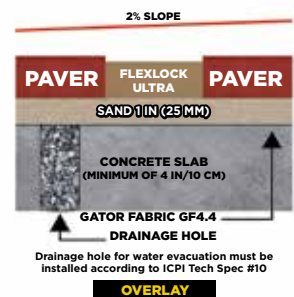
2 Gator Base system:

- A minimum 2% top surface slope for proper water runoff
- **FLEXLOCK ULTRA** level, must be at least 1/8" (3 mm) below top of paver's surface or 1/8" (3 mm) below the chamfer
- Minimum joint width 1/8" (3 mm), Maximum 2" (5 cm)
- Minimum depth of joint 1 1/2" (38 mm)
- **Gator Base** on compacted sand (C-33 sand or ASTM No. 9) maximum of 1" (25 mm)
- Adding a layer of bedding sand (C-33 sand or ASTM No. 9) maximum of 1" (25 mm) on top of **Gator Base** is also an accepted method, when paver or stone are not equal in t
- For pedestrian applications only



3 Overlay application:

- A minimum 2% top surface slope for proper water runoff
- **FLEXLOCK ULTRA** level, must be at least 1/8" (3 mm) below top of paver's surface or 1/8" (3 mm) below the chamfer
- Minimum joint width 1/8" (3 mm), Maximum 2" (5 cm)
- Minimum depth of joint 1 1/2" (38 mm)
- Layer of bedding sand maximum of 1" (25 mm)
- Layer of 4" (10 cm) thickness of concrete with 2" (5 cm) drainage hole every 10' (3 m) filled with 3/8" (9mm) clean stone and cover with a geotextile for water evacuation
- For light traffic applications the pavers must be completely interlocked



Note:

- Remove all loose and fragile concrete
- Cover the surface with a geotextile **Gator Fabric GF4.4**, refill with crushed stone and compact it
C-33 sand or ASTM No. 9 stone can be used under pavers.

FLEXLOCK ULTRA FOR PAVING STONE JOINTS UP TO 2"

TDS Revision Date (dd/mm/yyyy): 26/11/2021



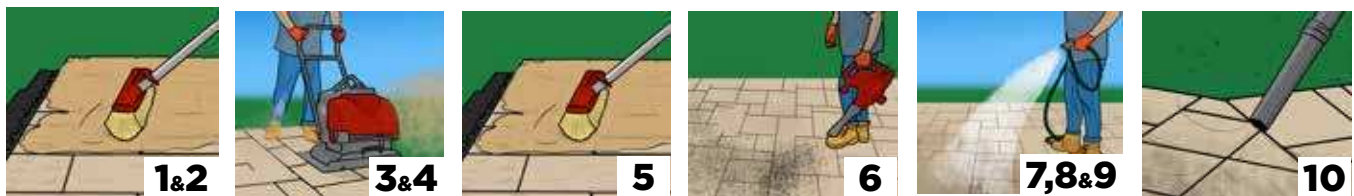
4 Overlay application:

- A minimum 2% top surface slope for proper water runoff
- **FLEXLOCK ULTRA** level, must be at least 1/8" (3 mm) below top of paver's surface or 1/8" (3 mm) below the chamfer
- Minimum joint width 1/8" (3 mm), Maximum 2" (5 cm)
- Minimum depth of joint 1-1/2" (38 mm)
- Layer of bedding sand maximum of 1" (25 mm)
- Minimum layer of 2" (5 cm) thickness of 0-3/4" (0-20 mm) compacted crushed stone
- Layer of 4" (10 cm) thickness of concrete with 2" (5 cm) drainage hole every 10' (3 m) filled with 3/8" (9mm) clean stone and cover with a geotextile for water evacuation
- For light traffic applications the pavers must be completely interlocked



Note:

- Remove all loose and fragile concrete
- Cover the surface with a geotextile [Gator Fabric GF4.4](#), refill with crushed stone and compact it
[C-33 sand](#) or [ASTM No. 9](#) stone can be used under pavers.



FLEXLOCK ULTRA INSTALLATION STEPS (FOR A NEW PAVER SURFACE)

- 1 Spread **FLEXLOCK ULTRA** with hard-bristle broom. Make sure the **FLEXLOCK ULTRA** completely fills the joints. Do not use other materials in the joints.
- 2 Leave a layer of **FLEXLOCK ULTRA** on the surface to aid in vibrating and consolidating **FLEXLOCK ULTRA** into joints. For textured or pre-finished surfaces, we recommend to remove all the sand from the paver or slab surface prior to using the plate or roller compactor.
- 3 Vibrate the **FLEXLOCK ULTRA** into the paver joints using a vibratory plate compactor. A rubber pad is recommended. A roller compactor is best for slab installation.
- 4 Joints sand level, must be at least 1/8 inch (3 mm) below top of paver's surface or 1/8 inch (3 mm) below the chamfer. It is best to compact in several directions to ensure there are no air gaps or voids in the joints. Repeat steps 1-3 to ensure joints are filled and consolidated. Narrow joints require more care to completely fill.
- 5 Sweep off excess **FLEXLOCK ULTRA** from the paved surface, first with a hard-bristle broom, then a soft bristle broom. Joints sand level, must be at least 1/8 inch (3 mm) below top of paver's surface or 1/8 inch (3 mm) below the chamfer.
- 6 Use a leaf blower to remove all remaining **FLEXLOCK ULTRA** residue from the paver surface.

IMPORTANT WATER ACTIVATION NOTES

- A Work in manageable sections, ideally about 100 sq. ft. (10 sq. m.) at a time, depending on temperature.
- B Do not allow **FLEXLOCK ULTRA** to wash out of joint.
- C Never allow paved surface to dry out during the water activation phase.
- D Watering must be started at the lowest point of the paved surface.
- E Use a watering gun connected to a hose. Setting should be set to shower.



**FLEXLOCK ULTRA
FOR PAVING STONE JOINTS UP TO 2"**

TDS Revision Date (dd/mm/yyyy): 26/11/2021

FLEXLOCK ULTRA INSTALLATION STEPS (FOR A NEW PAVER SURFACE) (CONT.)

FLEXLOCK ULTRA WATER ACTIVATION STEPS

- 7 Shower water on a specific water area of 100 sq.ft. (10 sq. m.), wait no longer than 2 to 3 minutes. Proceed to STEP 8.
- 8 Shower and rinse simultaneously on a section of approximately 100 sq. ft. (10 sq. m.) so as to eliminate any **FLEXLOCK ULTRA** residue left on the pavers. Any **FLEXLOCK ULTRA** residue should go directly into the paver joints. Wait no longer than 2 to 3 minutes. Proceed to STEP 9.
- 9 Shower and rinse simultaneously, so as to eliminate any **FLEXLOCK ULTRA** residue. Any residue should go directly into the paver joints. However, stop showering when you see water retention on the paver joints. Wait no longer than 2 to 3 minutes. Proceed to STEP 10. Note: Repeat the directions of STEPS 7 to 9 for all other areas that have not been showered with water.
- 10 Use a leaf blower to remove any excess water remaining on the paver pores and crevices. This blowing action is necessary to help remove any remaining **FLEXLOCK ULTRA** residue left on paver surfaces from the previous steps.

IMPORTANT:

The water used in steps 7 to 9 will activate a bonding action as well as condensing **FLEXLOCK ULTRA** in the joints. It is important to water the **FLEXLOCK ULTRA** a total of 3 times, as per steps 7, 8 and 9. Too little water will not properly activate the **FLEXLOCK ULTRA** and will reduce the final performance. If steps 7 to 10 are not done properly, a white haze may appear on paver surface after installation. This is due to excess **FLEXLOCK ULTRA** residue left on paver surfaces. This haze will dissipate over time, or it could be removed by using [GATOR CLEAN efflorescence cleaner](#).

FLEXLOCK ULTRA INSTALLATION (FOR AN EXISTING PAVER SURFACE)

Remove existing jointing material. Be careful not to disturb the bedding material under the pavers. Pavers must be completely dry before installing a minimum of 1 1/2" (38 mm) deep into the joints. **FLEXLOCK ULTRA** level, must be at least 1/8 inch (3 mm) below top of paver's surface or 1/8 inch (3 mm) below the chamfer or erosion may occur. The filled and cured polymeric sand joints should never be in direct contact with foot traffic or tires. Follow **FLEXLOCK ULTRA** installation steps 1 to 10 for a new paver surface.

Typical Properties				
Test	Cure	Method	Value	Unit
Water Penetration	24 hrs	ASTM C-642	<01:00	min:sec
Flexural strength	7 days	BS EN 13892-2	425	psi
Drying shrinkage	25 days	ASTM C-596	0.032	%
Water immersion	7 days	SOP-MP-035	pass	
Resistance to efflorescence	7 days	SOP-MP-036	pass	
Penetration strength	24 hrs	SOP MP-032	123	PSI
Spring drive	24 hrs	SOP MP 032	8	0-200 scale
Abrasion resistance	24 hrs	SOP MP-030	pass	
Erosion resistance	24 hrs	SOP MP-029	<5.0	% lost
Dirt Pick up during installation	N/A	SOP MP-031	1.96	ΔE value



**FLEXLOCK ULTRA
FOR PAVING STONE JOINTS UP TO 2"**

TDS Revision Date (dd/mm/yyyy): 26/11/2021

Packaging:	Product	Size	Units per Pallet
	FLEXLOCK ULTRA - Sandy Beige	22.7 kg (50 lb)	56
	FLEXLOCK ULTRA - Graphite Grey	22.7 kg (50 lb)	56

15-YEAR LIMITED WARRANTY (RESIDENTIAL)

Please note that this limited warranty applies only when the product is used for residential purposes exclusively (home owners or contractors using the product for single or multi-unit dwellings that are exclusively for residential use). The manufacturer cannot guarantee results as it has no control over surface and sub-surface preparation and product application. (Proper installation of pavers or slabs to ensure long-term stability of work, including granular foundation of certified crushed stone of 0-3/4 inch (0-20 mm) (minimum of 6 inches / 15 cm), bedding sand layer (maximum of 1 inch/25 mm) and appropriate installation of reinforced edging in accordance with above specified method for applying product.) Also warranted when used with Gator Base. However, for a period of 15 years from purchase, the manufacturer agrees that if the product is proven to be defective, and on the condition that it was installed pursuant to the method of application of surface and sub-surface preparation described above, then the manufacturer agrees to refund the purchase price. Proof of purchase is required for any claim.

**15 YEAR
LIMITED WARRANTY**

**A D V A N C E D
HAZE FREE
T E C H N O L O G Y**

**WATER
PROOF X
BAG**

EXCLUSION OF RESPONSIBILITY

THE PARTIES AGREE THAT REFUND OF THE PURCHASE PRICE AS STATED IS THE ONLY OBLIGATION OF THE MANUFACTURER. IN ALL EVENTS, THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY OTHER DAMAGES OR COSTS WHATSOEVER, (INCLUDING REMOVAL OR REINSTALLATION OF SAND OR PAVERS) DIRECT OR CONSEQUENTIAL. TO THE EXTENT PERMITTED BY LAW, THE MANUFACTURER EXCLUDES ANY IMPLIED WARRANTY OF QUALITY, MERCHANTABILITY OR FITNESS FOR PURPOSE. ALLIANCE DESIGNER PRODUCTS INC. excludes any responsibility whatsoever for the presence of moss, mold, mildew, or similar factors that may occur on the product after its installation. The presence of moss, mold or mildew is caused by the particular on-site conditions, including excess moisture, shade, absence of ventilation, inadequate cleaning or maintenance, presence of soil or other organic debris left on the product after installation. ALLIANCE DESIGNER PRODUCTS INC. excludes any responsibility for use of FLEXLOCK ULTRA for any installation not installed to manufacturer's specifications and [ICPI Tech Spec #2](#).

1 YEAR LIMITED WARRANTY (COMMERCIAL)

Please note that when the product is used for other purposes (Mixed-use, commercial, institutional or other), the above terms apply except that the applicable period is reduced to 1 year from purchase. ALLIANCE DESIGNER PRODUCTS INC. excludes any responsibility for use of any Flexlock Polymeric Sand for any installation not installed to manufacturer's specifications and [ICPI Tech Spec #2](#).