

BERA GRAVEL FIX[®] *Lite*

Gravel Stabilization System



BERA[®]

BERA® The GREEN

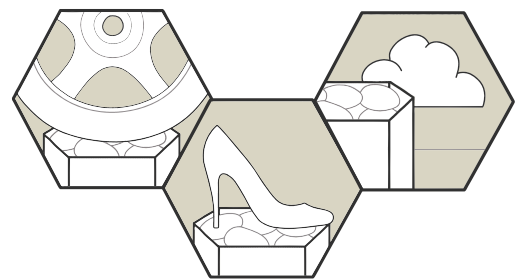
Water Facts:

Ground water is rainwater that has seeped into the subbase. It is important for the production of drinking water and prevents agricultural and wildlife areas from drying out. The water crisis is the #1 global risk based on impact to society (as a measure of devastation), and the #8 global risk based on likelihood (likelihood of occurring within 10 years) as announced by the World Economic Forum, January 2015. - source: water.org.

SUSTAIN WATER FOR FUTURE GENERATIONS

BERA Gravel Fix®, your solution!

- Stable and strong gravel paving for light traffic and pedestrian use
- Immediate rainwater infiltration, 180 liter/sec per m²
- Sustainable in its application, 100% sustainably made in Europe
- For residential parkings, driveways and pedestrian areas



The areal view of our manufacturing facilities.

Solutions Provider



Bera B.V.
has successfully achieved Cradle to Cradle Certified® Silver
for the product(s) under the name:
BERA Gravel Fix®

- BERA Gravel Fix Pro
- BERA Gravel Fix Lite
- BERA Gravel Fix Smart

Certification Number
4572

Standard Version
3.1

Lead Assessment Body
Biffinger Tebodin Netherlands B.V.

Material Health Assessment Body
MBDC

Effective Date
18 December 2020

Expiration Date
05 December 2022

Christina Raab
President & CEO
Cradle to Cradle Products Innovation Institute

See the Cradle to Cradle Certified Product Registry at www.c2ccertified.org for additional details.
Use of the certification marks is subject to the terms and conditions of the C2CPII Certification Agreement and Trademark Use Guidelines.
Cradle to Cradle Certified is a registered trademark of the Cradle to Cradle Products Innovation Institute.

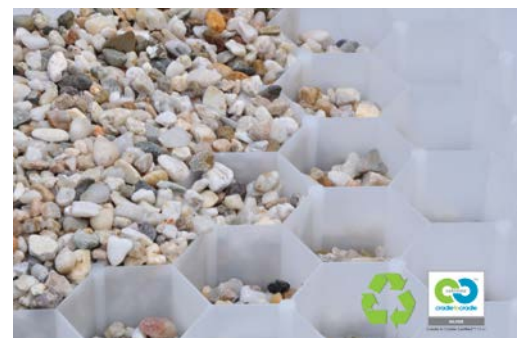


Tebodin Netherlands BV assessed BERA Gravel Fix® white on the 5 criteria of Cradle to Cradle i.e. Material Health, Material Reutilization, Renewable Energy and Carbon Management, Water Stewardship and Social Fairness. Our product has been awarded with the Cradle to Cradle Certified™ Silver level. The certificate was handed by Tebodin on 26 September 2015. On the same day Prime Minister of Czech Republic opened the new BERA Production facilities together with Embassy of The Netherlands expanding the production capacity and logistics center.



BERA Gravel Fix® Lite white, 100% sustainable!

- Cradle to Cradle Certified™ Silver
- LEED and BREEAM® credits
- ISO9001 certified, made in Europe
- Safety compliance REACH - EC1907/2006
- Socially and respectfully made by disabled staff
- Fully recyclable after use



INTRODUCTION

What is BERA Gravel Fix® Lite?

BERA Gravel Fix® Lite is an advanced 100% recyclable stabilization system for gravel. With its hexagonal honeycomb structure of high quality Polypropylene cells and professional Typar Geotextile backing, BERA Gravel Fix® Lite is designed to provide a strong and stable sub-base for the application of gravel on paths and light traffic parkings or driveways. It will facilitate a strong and porous surface for residential projects.

The product Type 'S' is a single sheet easy to use for paths and alongside facade or pools. Type 'L' is the double size 'book-fold', easy to take into the vehicle and install for larger surfaces such as residential parking area's.

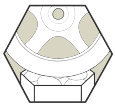
Applications for BERA Gravel Fix® Lite:

- 👉 Walkways and terraces
- 👉 Light traffic area
- 👉 Cemeteries and parks
- 👉 Gardens and terraces
- 👉 Restaurants and hotel terraces



Features and benefits of BERA Gravel Fix® Lite:

- 👉 Easy to install & stable dry gravel surface in fast and economic way
- 👉 For pedestrian and light vehicle use
- 👉 Easy mobility for all including those wearing high-heels or with bicycles, motorbike or wheelchair
- 👉 Terrace furniture, ladders – stable and no sinking in
- 👉 Fully porous, so dry and ensuring infiltration of rainwater immediately
- 👉 DuPont™ Typar® geo-textile backing, fully porous, durable and strong



📌 For your vehicle use and parkings



📌 For maximum mobility and stability on path and walkways



📌 For green roofing with sedum or stable base for (roof) terraces



📌 All BERA Gravel Fix products are manufactured with **GREEN** solar and biomass power.

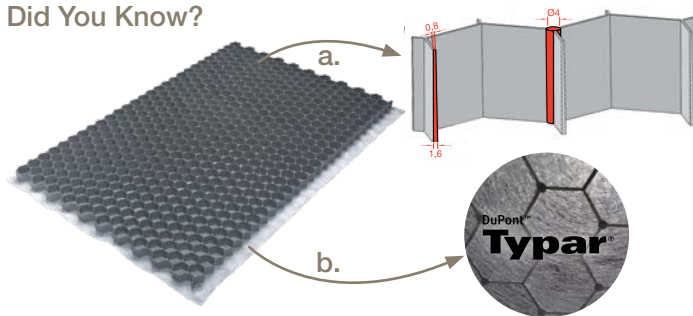


📌 UV stabilisation included



📌 Made in Europe

Did You Know?



- a. BERA Gravel Fix® Lite has 26 mm deep, tapered cell walls of 1.6 mm at the base and 0.8 mm at the top to ensure the highest vertical strength. The ultrasonic welding process adds to the lateral strength for use on sloped areas.
- b. Geotextile with DuPont™ Typar® for maximum drainability following EN ISO 11058

Environmental and Engineering Excellence

BERA Gravel Fix® Lite is manufactured in the European Union under stringent Quality and Environmental Control standards, including REACH (EC 1907/2006). The use of recycled raw materials and well developed infrastructure to minimize our delivery carbon footprint, underline our corporate vision in providing environmentally sustainable solutions.

BERA Gravel Fix® Lite in white is Cradle to Cradle Certified™ Silver. <http://www.c2ccertified.org>

BERA Gravel Fix® Lite, a sustainable product:

- 🌿 Manufactured in Europe using renewable energy sources
- 🌿 Fully recyclable after end of life-cycle
- 🌿 Select 100% recycled raw materials at no extra cost
- 🌿 Safety according REACH (EC1907/2006)
- 🌿 UV and frost resistant
- 🌿 No glue, only thermally welded connections
- 🌿 Social awareness policy

TECHNICAL

TECHNICAL SPECIFICATIONS*

GENERAL

Material	: 100% recycled or pure Polypropylene (recyclable)
Manufacturing technique	: High Precision Injection Moulding
Manufacturing standards	: ISO9001, 16949 Lloyds, REACH
Manufacturing location	: European Union
Colour	: White, grey
Cell structure	: Hexagonal
Membrane	: DuPont™ Typar® – 68 g/m ²
UV and frost	: UV and frost resistant

PHYSICAL DATA

	Lite - S	Lite - L
Sheet size, folded uninstalled L x W x H	: not applicable	787 x 581 x 52 mm
Sheet size installed	: 787 x 581 x 26 mm	1164 x 787 x 26 mm
Surface	: 0.46 m ²	0.92 m ²
Wall thickness tapered	: 0.8 - 1.6 mm (top - bottom)	0.8 - 1.6 mm (top - bottom)
Weight per piece	: 0.65 kg	1.3 kg
Gravel size	: 3 till 12 mm	3 till 12 mm
Gravel per m ²	: 43 liter / 65 kg	43 liter / 65 kg
Vertical strength, empty	: > 75 T/m ²	> 75 T/m ²
Vertical strength, filled	: > 400 T/m ²	> 400 T/m ²



* All data is subject to change without prior notice by the manufacturer

Product ID	Description	Pallet info
1100212	Gravel Fix Lite - S - White - 60 x 80 (0.46 m ²) - PUV1 - Typar	Quantity: 80 pieces = 36.8 m ² Dimensions: 120 x 80 x 120 cm Weight: 75 kg
1100213	Gravel Fix Lite - S - Grey recycled - 60 x 80 (0.46 m ²) - RUV1 - Typar	
1100214	Gravel Fix Lite - S - Black recycled - 60 x 80 (0.46 m ²) - RUV1 - Typar	
1100215	Gravel Fix Lite - L - White - 120 x 80 (0.92 m ²) - book-fold - PUV1 - Typar	Quantity: 40 pieces = 36.8 m ² Dimensions: 120 x 80 x 120 cm Weight: 75kg
1100216	Gravel Fix Lite - L - Grey recycled - 120 x 80 (0.92 m ²) - book-fold - RUV1 - Typar	
1100217	Gravel Fix Lite - L - Black recycled - 120 x 80 (0.92 m ²) - book-fold - RUV1	
1100218	Gravel Fix Lite - S - White - 60 x 80 (0.46 m ²) - PUV3 - Typar	Quantity: 80 pieces = 36.8 m ² Dimensions: 120 x 80 x 120 cm Weight: 75 kg
1100219	Gravel Fix Lite - S - Grey recycled - 60 x 80 (0.46 m ²) - RUV3 - Typar	
1100223	Gravel Fix Lite - S - Black recycled - 60 x 80 (0.46 m ²) - RUV3 - Typar	
1100224	Gravel Fix Lite - L - White - 120 x 80 (0.92 m ²) - book-fold - PUV3 - Typar	Quantity: 40 pieces = 36.8 m ² Dimensions: 120 x 80 x 120 cm Weight: 75kg
1100225	Gravel Fix Lite - L - Grey recycled - 120 x 80 (0.92 m ²) - book-fold - RUV3 - Typar	
1100226	Gravel Fix Lite - L - Black recycled - 120 x 80 (0.92 m ²) - book-fold - RUV3 - Typar	

GEOTEXTILE DuPont™Typar® TECHNICAL DATA

Essential characteristics	Test Method	Unit	Performance
Tensile Strength T ^{max}	EN ISO 10319	kN/m	MD 3.7 (- 0.8) CMD 3.4 (- 0.8)
Dynamic Perforation Resistance D	EN ISO 13433	kN/m	50 (+ 0)
Resistance to Static Puncture F	EN ISO 12236	mm	0.500 (-0.08)
Opening Size O ⁹⁰	EN ISO 12956	kN	225 (+/- 40)
Water Permeability V ^{H50}	EN ISO 11058	m/s	180 x 10 ⁻³ (- 40 + 10 ⁻³)
Durability in accordance with Annex B	Predicted to be durable for more than 100 years in all natural soils with temperatures <25 °C on the basis of a durability assessment (Typargeo Report 070)		

Source: DuPont™Typar® SF20 Declaration of Performance

LAYING INSTRUCTIONS

For path only



1.5 cm gravel
2.8 cm BERA GRAVEL FIX® with gravel
10 cm sharp sand or split

For vehicle use



1.5 cm gravel
2.8 cm BERA GRAVEL FIX® with gravel
4 - 6 cm sharp sand or split
15 - 25 cm crushed stone

FOUNDATION

Foundation profile to be determined by site conditions and suitable for anticipated load. In general the foundation shall be:

For path only: a flat layer of 10 cm sharp sand or split.

For vehicle use: a compacted layer of 15-25 cm MOT (crushed stone) plus 4-6 cm sharp sand or split.



SHAPING

Create shape using edging systems in aluminium, Corten or galvanized steel, wood or plastic. Height (5-15 cm) and thickness depending on expected load. Use laser height determination for alignment with surrounding area.



COMPACTING

A stable, well compacted and permeable base, as used in all other paving methods, is essential. Failure may lead to non-performance of BERA Gravel Fix® Lite as intended.



LEVELING

After compacting, level the sand or split layer eliminating any surplus sand or split. Remove any debris or sharp items from the sand or split layer.



LAYING

Each sheet has extended geo-textile lips on 2 sides. Lay the sheets onto the extended geo-textile lip of the adjacent sheet for maximum stability, weed control and support.



TRIMMING

Cut to fit to edging or obstacles using hand or electric tools to ensure sheets are firmly fixed within the edges. Important: Please follow tool manufacturers safety instructions.



FILLING

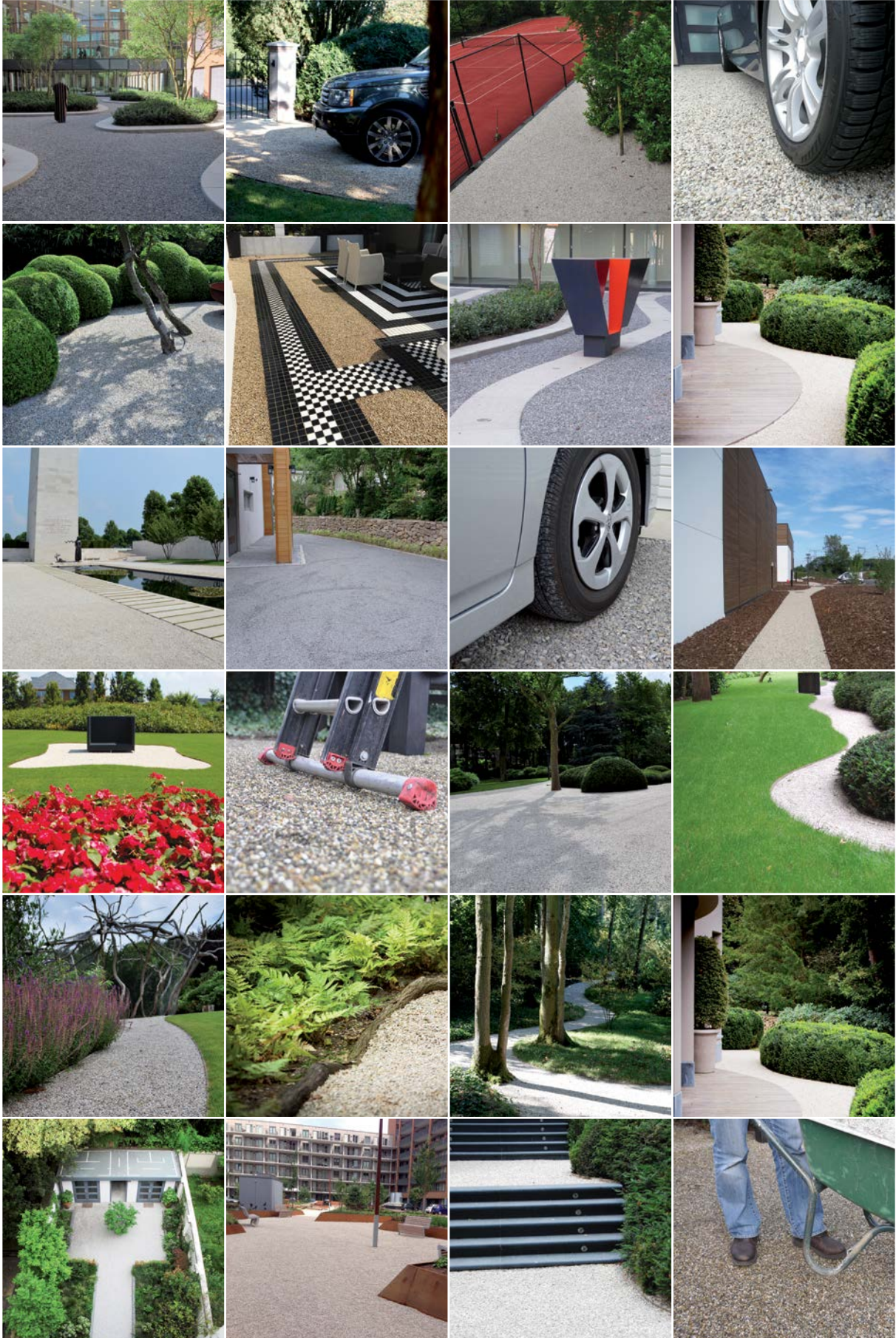
Fill the sheets with gravel, recommended 3-12 mm, which should exceed the height of the cell wall by 15-20 mm. (refer to our Technical Documentation for further details).



FINISHING

Rake the gravel to distribute evenly and cover the sheets. Compact lightly when used for parkings. Maintenance is limited to raking and removing leaves and other debris. Important: Keep the sheets covered with gravel for maximum durability. Top-up gravel as and when required to keep the sheets covered at all times.

APPLICATION REFERENCES





BERA® is the trademark of BERA B.V. of The Netherlands, a company which develops stabilization systems, eco systems and prestigious outdoor living concepts.

With the company's historical roots & wealth of know-how in landscaping and architectural fields, they create innovative and environmentally sustainable solutions, supplied throughout Europe, the Middle-East, South Africa and S-E Asia regions.

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