

BERA  GRAVEL FIX[®]
pro

Gravel Stabilization System



BERA[®]

BERA® The GREEN

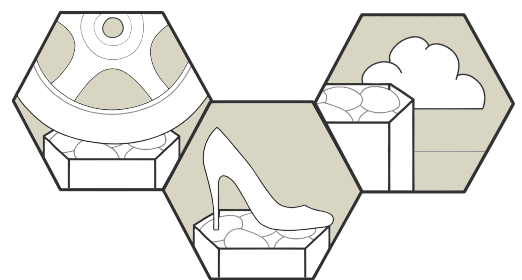
Water Facts:

Ground water is rainwater that has seeped into the substrate. 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 traffic and pedestrian use
- Immediate rainwater infiltration, 180 liter/sec per m²
- Sustainable in its application, 100% sustainably made
- For parkings, driveways and pedestrian areas



The areal view of our manufacturing facilities.

Solutions Provider



Tebodin Netherlands BV assessed BERA Gravel Fix® Pro 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® Pro 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® Pro?

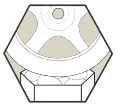
BERA Gravel Fix® Pro is an advanced recyclable stabilization system for gravel, shells, mulch and sand. With its hexagonal honeycomb-like structure of high quality Polypropylene cells, BERA Gravel Fix® Pro is designed to provide a strong and stable sub-base for the professional application of gravel on paths, driveways, car parks and roofs. Installed by professional contractors it will facilitate a strong and porous surface for residential and urban projects.

Applications:

- 👉 Landscaping of urban areas
- 👉 Residential villa gardens and terraces
- 👉 Parking and gravel driveways
- 👉 Service access routes

Features and benefits of BERA Gravel Fix® Pro:

- 👉 Easy to install and stable gravel surface in fast and economic way
- 👉 Three sizes, Pro, Pro XL (book-fold) and Pro XXL from 0.9 - 2.7 m²
- 👉 For pedestrian and vehicle use, even trucks
- 👉 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® geotextile fitted for maximum porosity and weed growth reduction



📘 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



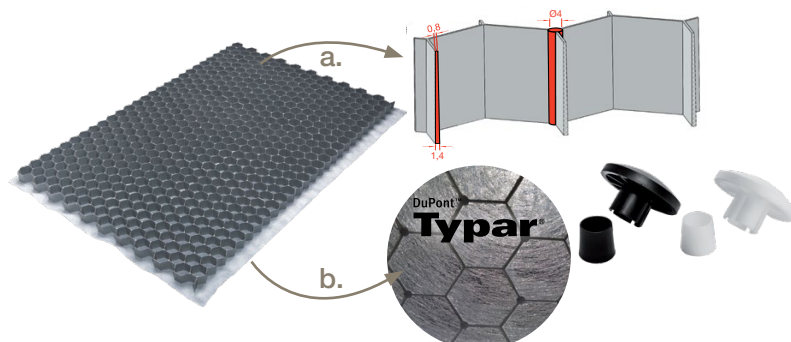
📘 All BERA Gravel Fix products are manufactured with **GREEN** solar and biomass power.



📘 UV stabilisation included



📘 Made in Europe



Did You Know?

- BERA Gravel Fix® Pro has 32 mm deep, tapered cell walls of 1.4 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.
- Geotextile with DuPont™ Typar® for maximum drainability following EN ISO 11058
- Parking Markers available for organizing your parking lots

TECHNICAL

Environmental and Engineering Excellence

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

BERA Gravel Fix® Pro, 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 SPECIFICATIONS*

GENERAL

Material	: 100% recycled or pure polypropylene, 100% recyclable
Manufacturing technique	: High Precision Green Injection Moulding
Manufacturing standards	: ISO9001, 16949 Lloyds, REACH
Manufacturing location	: European Union
Colour	: White, grey, black or RAL
Cell structure	: Hexagonal
Membrane	: DuPont™ Tytar® – 68 g/m²
Drainability EN ISO 11058	: 180 liter / (m².s)
UV and frost	: UV and frost resistant

PHYSICAL DATA

Model	Pro	Pro XL	Pro XXL
Dimensions L x W x H (mm)	: 1176 x 764 x 32	1176 x 764 x 64 (folded) 1528 x 1176 x 32 (installed)	2292 x 1176 x 32
Installed surface (m²)	: 0.9	1.8	2.7
Cell size (mm)	: 42	42	42
Wall thickness, tapered (mm)	: 0.8 - 1.4 mm	0.8 - 1.4 mm	0.8 - 1.4 mm
Weight (kg)	: 1.4	2.8	4.2
Gravel/split volume/weight	: 50 l/m² = 75 kg/m² - size between 3 and 16 mm	50 l/m² = 75 kg/m² - size between 3 and 16 mm	50 l/m² = 75 kg/m² - size between 3 and 16 mm
Vertical strength, empty (T/m²)	: 120 resp. 95 (white resp. grey/black)	120 resp. 95 (white resp. grey/black)	120 resp. 95 (white resp. grey/black)
Vertical strength, installed (T/m²)	: > 450 depending on gravel/split	> 450 depending on gravel/split	> 450 depending on gravel/split

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

- BERA Gravel Fix® Pro is frequently used on light slopes including driveways. Specific requirements on the application depend on the circumstances on site. Please contact the manufacturer or the dealer for further advice.
- BERA Gravel Fix® Pro white is Cradle to Cradle Certified™ Silver available in multiple sizes.

GEOTEXTILE DuPont™Tytar® 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 (Tytargeo Report 070)		

Source: DuPont™Tytar® SF20 Declaration of Performance

LAYING INSTRUCTIONS

For path



1.5 cm gravel	1.5 cm gravel
3.2 cm BERA GRAVEL FIX® with gravel	3.2 cm BERA GRAVEL FIX® with gravel
10 cm sharp sand or gravel	4 - 6 cm sharp sand or gravel
	15 - 25 cm crushed stone

Vehicle use



FOUNDATION

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

For paths only: a flat layer of 10 cm sharp sand.

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



SHAPING

Create shape using border 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 base, as used in all other paving methods, is essential. Failure may lead to non-performance of BERA Gravel Fix® Pro as intended.



LEVELING

After compacting, level the sand or gravel layer eliminating any surplus sand/gravel. Remove any debris or sharp items from the sand/gravel 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. Check with your supplier for specific instructions.



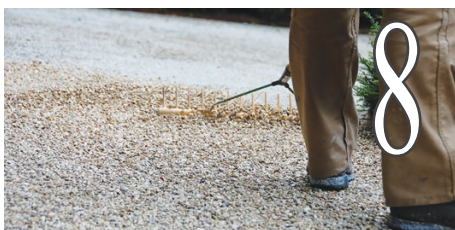
TRIMMING

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

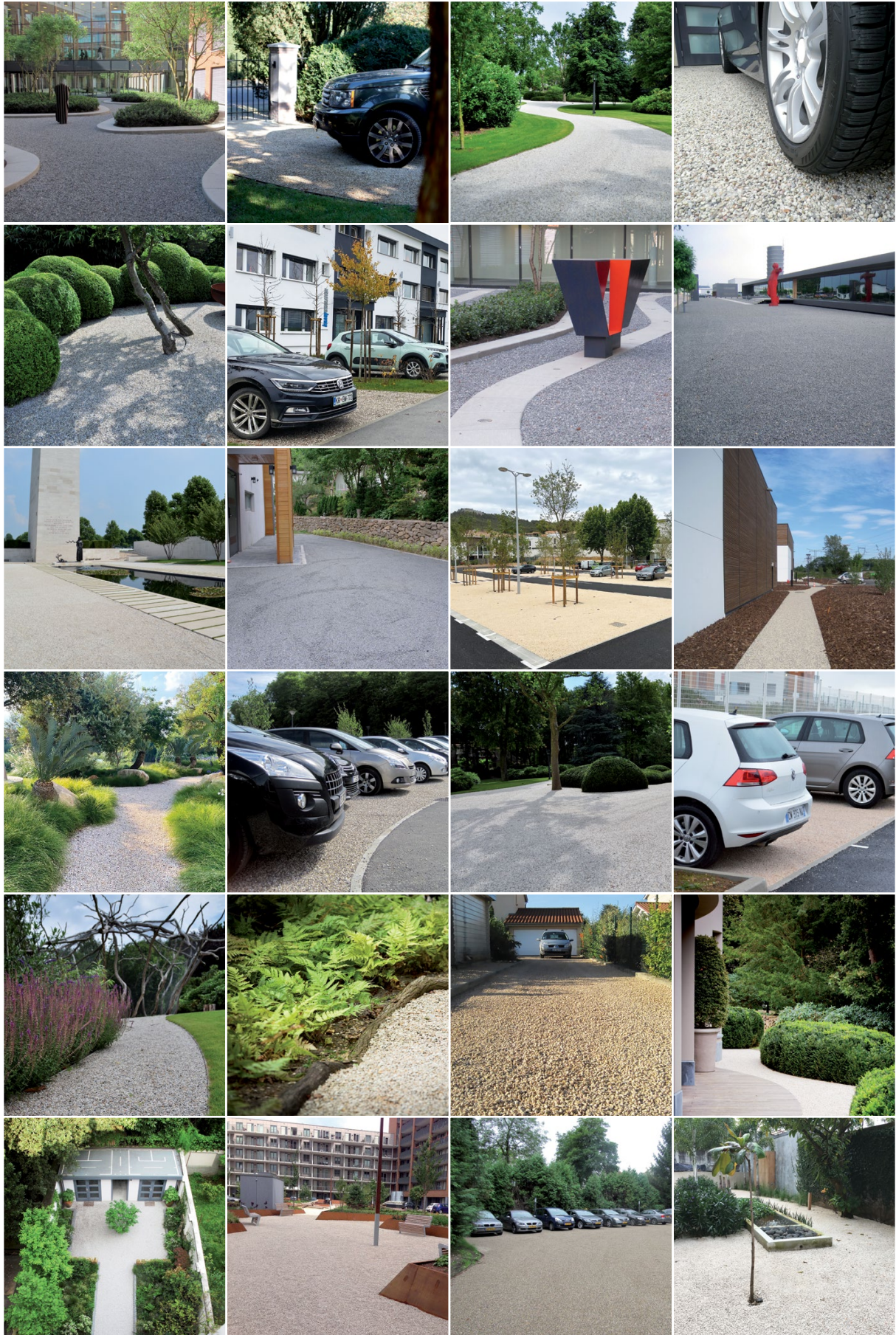
Fill the sheets with gravel size min. 3 max. 16 mm, which should exceed the height of the cell wall by 15-20 mm. (refer to our Technical Documentation for further details).



FINISHING

Rake the gravel to distribute evenly. 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.

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, Africa, Central America and S-E Asia regions.

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