



hanit[®]
TRAFFIC TECHNOLOGY

ROAD-, TRAFFIC- AND INFRASTRUCTURE NEEDS MADE OUT OF RECYCLED PLASTIC



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ROUND POST



CALERO SET



COLLEC LITTER BIN

THE CLEVER ALTERNATIVE TO WOOD AND CONCRETE



www.blauer-engel.de/uz30a

hanit® RECYCLED PLASTIC MADE IN GERMANY

Each material has its advantages. Unfortunately, they also have their drawbacks.

Wood, for example, is attractive but it can't withstand the rain and cold for long. Time-consuming maintenance helps, but wood can't last forever. Concrete is very durable but it's just too heavy for many applications. Concrete is difficult to transport and as years go by, dirt and water marks take their toll. It can also crack in cold weather and flake. Steel, on the other hand, is incredibly versatile but you have to think about rust - and stainless steel is expensive. The same can be said about new plastics, not to mention the impact on the environment.

And then there's hanit®.

Unlike wood or steel, weather isn't a problem for hanit®. As it's lighter than concrete and cheaper than steel, it's easier on the back and the budget! But best of all, virtually any product can be made out of this high-tech material. Thanks to its unique composition, hanit® can be adapted to almost any application.

 <p>DURABILITY</p>	<ul style="list-style-type: none"> » Weather-resistant » Rot-resistant » Splinter-free and carries low risk of injury 	<ul style="list-style-type: none"> » Can be used all year round » Moisture-repellent, does not absorb water and dries quickly
 <p>LIGHT-WEIGHT</p>	<ul style="list-style-type: none"> » Installation does not require heavy equipment » Higher load capacity 	<ul style="list-style-type: none"> » Transport cost savings » Faster installation » Reduced workload
 <p>ECONOMICAL</p>	<ul style="list-style-type: none"> » Long service life » Resistant to oils, acids, alkalis and salt water » Low maintenance and service costs 	<ul style="list-style-type: none"> » Made of high-quality processed secondary plastics (polyolefins) » Excellent price-quality ratio » Perfect construction material, especially for robust profiles and finished products
 <p>ECO-FRIENDLY</p>	<ul style="list-style-type: none"> » Produced without preservatives » Reduces the strain on landfill, is sustainable and environmentally friendly » 100% Recyclable 	<ul style="list-style-type: none"> » Awarded the „BLUE ANGEL“ eco-label » Non-polluting » Non-toxic (safe according to DIN 71, Section 3 Playground Regulation)
 <p>SIMPLE PROCESSING</p>	<ul style="list-style-type: none"> » Easy to process mechanically (drilling, sawing, screwing, nailing) » Simple modifications can be made on site 	<ul style="list-style-type: none"> » Never stain or seal again » No maintenance required

ROUND POST

With and without reinforcement

A game fence and its posts have to satisfy very high demands. It has to resist extreme strain and may neither splinter nor rot. Furthermore, toxic impregnation agents are taboo. The right case for hanit®. Game fences made out of this sustainable material are weather-resistant, rot- and splinter-proof and extremely long-lasting – without impregnation and maintenance.

- » Diameter: between 4.5 and 10 cm
- » Lengths: depending on the model between 85 and 290 cm
- » Easy mounting of cramps
- » Posts never needs to be replaced again
- » Running repairs with single posts possible



Ø (cm)	Lengths (cm)								
	85	90	200	225	230	250	275	280	290
8.0			■ ■	■ ■		■ ■	■ ■		■ ■
8.0 (with chamfer)			■ ■	■ ■		■ ■	■ ■		■ ■
10.0			■ ■		■ ■	■ ■		■ ■	■ ■
4.5 (as peg)	■ ■								
7.0 (as peg)		■							

Color and dimensions (up to 3%) of products made out of recycled plastics may vary.

■ Standard ■ With reinforcement

BURROWING BARRIER

With recesses

When a fence has to divide and separate reliably, our special panels help to stop burrowing and tunnelling. The fence attaches securely to the panels with special brackets.

- » Dimensions (WxLxT): 40 x 200 x 2.5 cm
- » Prevents tunnelling
- » Recesses against waterlogging
- » For public and private fence building
- » Secure connection with the fence





ROAD SAFETY

WILDLIFE PROTECTION FENCE



FINGERPOSTS



TIVOLI SET

Ideal for any circumstances

The Tivoli set is easy to spot: the backless bench and table share the same stylish leg elements and the bench has a light and decorative look. Available in four different colour variations, the Tivoli is sure to look good, whatever the setting.

- » Dimensions (W x D x H): 150 x 205 x 80 cm and 200 x 205 x 80 cm
- » Large colour selection
- » Fits into many surroundings
- » Optional: Ground anchor type 1 and arm rest



BAVARIA SET

The rustic set

One look at the Bavaria set and you know it's going to last. The thick and solid table tops, seats and back rests give it a distinctly rustic feel. The Bavaria set is at its best in rural, earthy surroundings: a great choice for woodland walks, nature reserves and mountain areas.

- » Dimensions (W x D x H): 200 x 220 x 80 cm
- » Solid table top
- » One-piece back rests and sitting surfaces
- » Rustic appearance
- » Optional: Ground anchor type 1



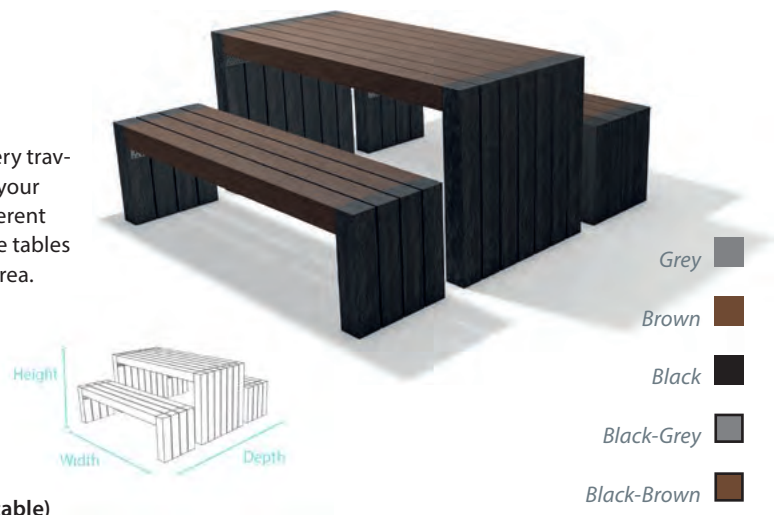


CALERO SET

The modern one

Take the exit, take a rest, just relax, take a bite to eat – every traveler enjoys to sit down at Calero set. And as you eat with your eyes: this weatherproofed, robust set is available in 5 different color combinations. With their straightforward design the tables and benches fit harmoniously into any rest- and service area.

- » Dimensions (W x D x H): 150 x 180 x 75 cm
- » Clean shape
- » Modern design
- » Cubism hanit® style
- » Optional: Ground anchor type 1 (bench) and type 2 (table)

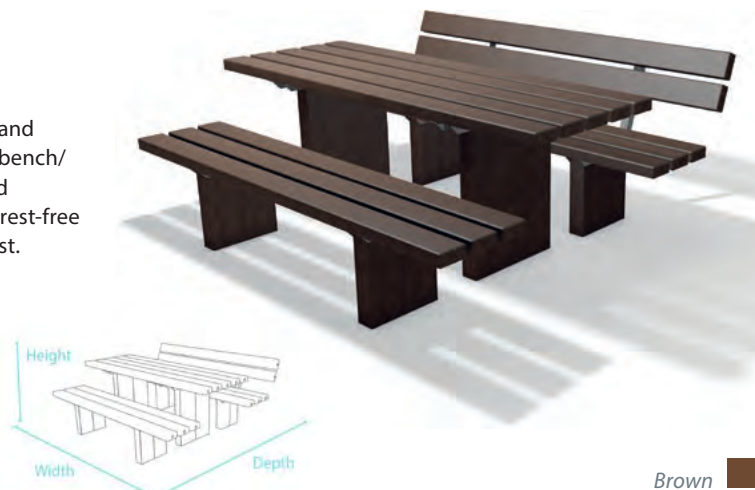


EIFEL SET

The set with straight lines

The Eifel bench set impresses due to its uncomplicated and straight lines. The harmonious impression of a timeless bench/table combination designed for permanence is achieved because of the sturdy substructure. There is also a back rest-free bench version in addition to the bench with the back rest.

- » Dimensions (W x D x H): 200 x 208 x 76 cm
- » To be secured in the ground
- » Clear lines
- » Suitable for use in modern surroundings
- » Timeless and durable





SERENGETI SET

The versatile picnic bench

The Serengeti picnic bench is all about the group dynamic. This sturdy bench/table combination is perfect for places wherever people get together, chat and mingle outdoors.

- » Dimensions (W x D x H): 180 x 174 x 76 cm and 200 x 174 x 76 cm
- » Version available with wheelchair table extension
- » Optional: Ground anchor type 3



PICCADILLY BENCH

Classic and elegant

The stylish Piccadilly is the classic park bench. Available in lengths of 150 cm or 200 cm, the Piccadilly is at home in almost any setting. For a splash of colour, the neutral grey base can be combined with black, blue, green or red boards. Also available in all brown.

- » Dimensions (W x D x H): 200 x 65 x 80 cm
- » Seat height: 45 cm
- » Optional: Ground anchor type 2 and arm rest





SUTTON BENCH

Modern shape, traditional charm

The distinctive sledge-runner shape of the legs makes the Sutton a real eye-catcher. It's an obviously modern design but it doesn't lose touch with traditional charm. The Sutton always looks good, even as part of a seating group and comes in three different sizes.

- » Dimensions (W x D x H): 150 x 60 x 80 cm, 200 x 60 x 80 cm and 240 x 60 x 80 cm
- » Seat height: 45 cm
- » Optional: Ground anchor type 1 and arm rest



GROUND ANCHOR

Security for your seating

Prevent benches and bench/table sets from being stolen with a hanit® ground anchor. Our anchors are made from solid hanit® and designed to be buried or concreted into the ground to provide a solid base for bolting benches and tables in place. Available in three styles.

- » Available in three styles
- » Safe, sturdy assembly
- » Is just buried or concreted into place
- » Best hanit® quality
- » No rotting



Brown

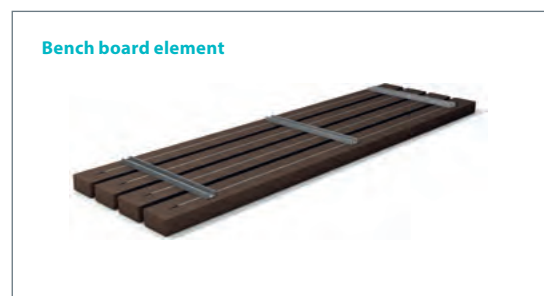
BENCH PLANKS / SEATING ELEMENTS

Versatile and robust – for flexible solutions

It does not always have to be a new bench. hanit® bench planks transform concrete bases, U-stones and gabions into comfortable seating accommodations. And they are the perfect solution for the replacement of wooden planks. Everlasting, as hanit® does not rot. This is why our bench planks and seating elements are the most beneficial solution in the long run.

- » Weather resistant, no maintenance
- » Adaptable to virtually any environment (available as single plank or as pre-assembled elements)
- » With reinforcement for even more stability

- Brown 
- Green 
- Blue 
- Red 





MUSCARI PLANTER

Strong and substantial

Planters need to be tough, especially if they're intended to beautify public spaces. Not only can weather, birds, animals and the plants themselves take their toll, they can often be the targets for vandalism. The Muscari is especially solid and substantial. Available in three colours.

- » Dimensions (LxWxH): 130 x 60 x 50 cm
- » 3 different colours



- Grey
- Brown
- Black



BOLLARDS

With or without reflector strips

Solid, robust, eye-catching – hanit® bollards are permanent helpers in the public area. As solidly-fixed “marshals” they establish landmarks, protect green areas and trees, direct the traffic into the desired direction and provide greater security. Depending on the intended purpose and the environment they are available in different diameters/ profile dimensions (12-20 cm) and head shapes.

- » Weather and rot resistant
- » Attractive design for urban environments
- » Sustainable production, made-to-last, recyclable



LITTER BINS

Problems with garbage? We have the solution.

We have the knowledge about collection and recycling of raw material since many years. You can even suggest, that waste disposal is one of our core competences. That is the reason why we have a well sorted product line of waste bins, which are almost indestructible over long periods. We offer you solutions in different sizes, shapes and designs - certainly some will fit for your application.

 *Brown*

- » Volume: from 50 to 130 liters
- » Height: from 50 to 100 cm
- » With and without wire basket
- » Square and round forms
- » One model with lid





HEAVY DUTY GROUND GRID

With connection system

Our heavy duty ground grids are considerably lighter than concrete equivalents. This makes transport and installation much easier. And with a stabilising interlocking system, our grids are just the job for car parks, lay-bys, farmyards or warehouses.

- » Measurement: 60 x 40 x 8 cm
- » High breakage resistance in spite of low weight
- » Saves transportation costs
- » Easy installation due connection system
- » Fast water drainage
- » Suitable for load class SLW 60 according to DIN 1072



Grey

HANPAVE

The permeable parking solution

Hanpave is a high performance grid made from recycled polypropylene. Designed for car-parking, Hanpave can be filled with earth or gravel. The structure allows rainwater to pass through at a controlled rate and is SUD (Sustainable Urban Drainage) regulations compliant. Parking space delineators (fitted white caps) are available as an optional extra.

- » Dimensions: 33.3 x 33.3 x 4 cm
- » Easy to install thanks to light weight
- » High load capacity: 250 to 350 tons per m²
- » Flexible elements available as identification, e.g. for parking lots



Black

Green



BARRIER

Bevelled at each end

Some areas need subtle protection from unwanted footfall or traffic, without blocking the area off completely. Our barriers help steer individuals and groups towards preferred routes and keep traffic going in the right direction. Good looking, effective, long-lasting and maintenance-free. Thanks to the internal steel reinforcement the new hanit® crossbar is even more robust. It offers a sufficient and valuable barrier for many years.

- » Dimensions (L x Ø x H): 280 x 12 x 104 cm
- » More stability thanks to reinforced crossbars
- » Easy assembly
- » Sturdy and durable



Grey
Brown

HANDRAIL SYSTEM

Support provided by flexible protection system

The hanit® handrail system is equally simple – just vertical posts and reinforced cross-members. These two elements can be combined for countless purposes using the threaded connectors included in the set. Perfect for safe crossings or for bordering access routes.

- » Length of posts: 150 cm
- » Dimension (Ø x L): 12 x 250 cm
- » Flexible during assembly
- » Easy direction changes
- » No restrictions in numbers of cross-members



Grey
Brown



HANDRAIL SYSTEM WITH BOARD PROFILE

For long distances and a long life

Your handrail system if large spans are needed. Be it separation of paths, road boundaries or the fencing of public areas – no problems with rot anymore. No more injuries caused by splitters or health hazards because of impregnating agents. We guarantee you instead a flexible, highly robust and extreme long-lasting safety system for man and nature.

- » Length of posts:
- » Dimensions of board profile:
- » Other sizes and lengths on request
- » Protection for man and nature

Grey 

Brown 



 Brown

RAILING COMPONENTS

Almost as good as new

Railings have a tendency to break or decay in stages. Frequently, the crossbars need to be replaced, but the posts, which required a great deal of effort during assembly, are still in good condition. It's always worthwhile to check whether the correct spare part can save you from having to re-do the whole job. This can pay off and corresponds to our recycling requirements in a very special way.

- » Handrail: Ø 12 x 250 or 264 cm
- » Knee rail: 4.2 x 12 x 260 cm
- » This is what we call recycling
- » Uncompromising quality - even when repaired



SCREEN / PRIVACY FENCE

Versatile and multi-purpose

Reinforced hanit® posts provide the structural framework for our screen/privacy fence. The posts are pre-grooved to work as corners, end posts or between panels and they're covered by a stylish cap. Tongue and groove boards slot easily between posts and the bottom board is held stable by a centre support. It's an easy way to fence a wide variety of landscapes – all with the well known advantages of hanit®.

- » Panel length: 200 cm (axis measurement)
- » Panel height: 195 cm (15 x tongue and groove boards)
- » Perfect system with field, corner and end posts
- » Easy assembly

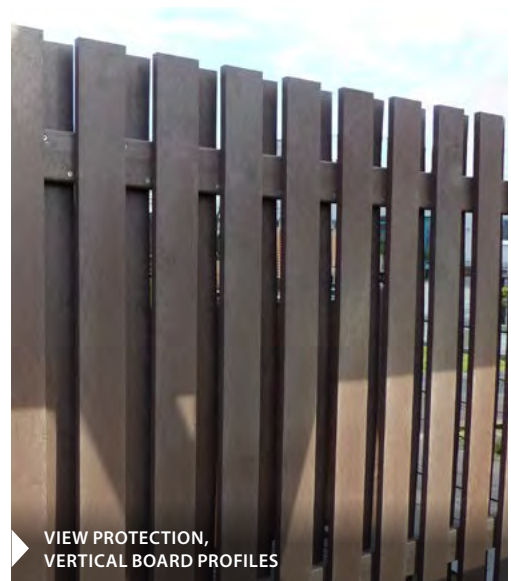
Posts and boards: *Brown*

Boards also: *Grey* *Green*

FURTHER INSPIRATIONS ON PRIVACY SCREENS



VIEW PROTECTION, HORIZONTAL BOARD PROFILES



VIEW PROTECTION, VERTICAL BOARD PROFILES

BOUNDARY STONE

For easier, lighter surveying

Whether surveying land, offices or construction sites, our recycled plastic boundary stone is ideal for marking fixed points. With a cross mark on the head, these 'stones' can define boundaries and mark intersecting or corner points - and working with our plastic 'stone' is a lighter than other materials!

- » Height: 50 cm
- » Size: 9 x 9 cm on top, 12 x 12 cm underneath
- » Light weight – easy handling
- » Lighter products – low transportation costs
- » High strength – no breakage
- » With cross mark



WEED COVER

For guide posts, round posts and crash barriers

hanit® weed covers sit firmly on the ground and prevent grass and weeds from growing around posts and guide rail supports. The covers make for much easier mowing and keep things looking neat and managed. Suitable for uneven ground.

- » Diameter: 50 cm
- » Suitable for all reflector post systems
- » Easy assembly without tools
- » The clean solution
- » Maintenance-free

 Brown



Crash Barrier Post
(IPE 100/IPE 140)



Round Post (possible bore
holes 2/4/6/8/10 cm)



Reflection Post



Crash Barrier Post
(sigma-shaped opening)



AMPHIBIAN GUARD

Multi-purpose protection

Whether on nature reserves or construction sites, conservation is increasingly important. During migration periods, newts, toads and frogs need to be protected against dangers like road traffic. Our water and weather-resistant amphibian guards have no problem with soggy conditions and provide safe passage through a controlled system.

- » Thickness: 2.5/10 cm
- » Height: 60 cm
- » Length: 192 cm
- » Resistant to moisture



i Mounting is recommended with our 9 x 9 x 150 cm square posts.

Pile the posts at the hems of the guard slaps up to 10 cm below the slap plank. This results in an edge which makes it more difficult to climb over.





**HIGHTECH
SAFELY
EMBEDDED**

CABLE PROTECTION COVER

With stabilisation grooves

There can be few materials more suitable than hanit® for robust, weather-resistant and maintenance-free cable covers. Tough and lightweight, our covers are resistant to oil, brines, acids and sea water. Prevent damage and stay safe with hanit®.

- » Thickness: 5 cm
- » Width: 20 cm
- » Length: 101 cm
- » Weather-resistant, rot-resistant, resistant to moisture
- » Easy to handle



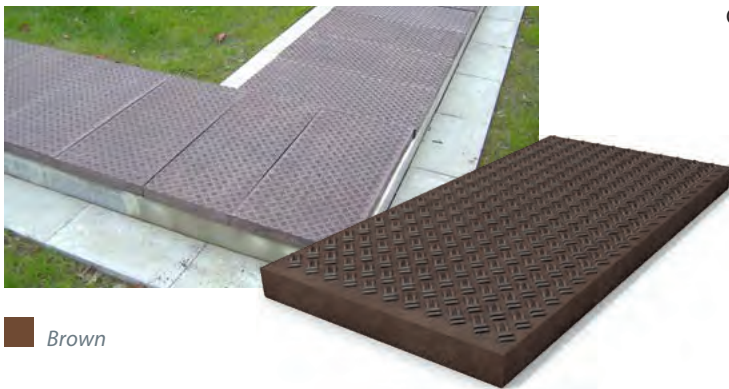
Grey

CABLE DUCT COVER

With or without reinforcement

Our patented cover comes in a variety of styles to fit almost any of the most commonly-used supply ducts. They're cost-effective and can be used for new constructions or for replacing old, cracked wood and concrete covers.

- » Maximum length: 190 cm
- » Many edge styles
- » High degree of adaptability
- » Pedestrian and vehicle rated covers available
- » Corner, curve and custom styles



Brown

CABLE DUCT

Robust and cost-effective

Whether protection for pipes and cables, or an installation or supply duct, hanit® ducts can be integrated and adapted to almost any situation, above or below ground.

- » 100 x 37.3 x 20.5 cm (L x W x H)
- » Easy to transport (only 23 kg)
- » Easy to process with standard commercial tools
- » Easy assembly



Grey

hanit® RECYCLED PRODUCTS

PROCESSING GUIDELINES

TOOL SELECTION



SAWING & CUTTING

High-speed band saws and circular saws with slightly crossed teeth, preferably carbide-tipped, produce the best finish. Quickly remove any shavings to avoid smearing the plastics. Lengths can also be shortened using a chainsaw, however, it is necessary to consider a loss of accuracy.



ROUTING

The span cross-section should be as large as possible to keep the machining heat relatively low. Depth of cut and feed rate should be high, the cutting speed on the other hand low. To increase the tool life, we recommend using routers with indexable carbide inserts.



DRILLING

Spiral bits with a helix angle from 20° to 30° peak angle from 110° to 120° can almost always be used. Relaxation strokes should occasionally be used, especially with larger drilling depths, to avoid high frictional heat.



PLANING

Standard planes can also be used to process plastics. The surface is largely dependent on the feed rate, cutting speed, clearance and cutting angle and the condition of the machining blade.



DEBURRING

Angle grinders are not suitable for cutting due to their high speed. Plastic parts, which exhibit burrs or edges following machining, can be processed with an angle grinder.

hanit® products can be processed as necessary with conventional tools and machinery used in wood and metal processing.

However, due to the properties of the material, some specific features must be considered:

- » In general, machining of profiles causes higher tool wear. We therefore recommend the use of carbide-tipped tools.
- » Recycled products have a closed surface. The core may have a honeycomb structure, which becomes visible during machining. This is due to the material properties.

TIPS FOR PROCESSING RECYCLED PROFILES



When bolting recycled profiles together, the profile to be fastened must be pre-drilled (e.g. boards, dock planks, square profiles). The hole must be larger than the bolt. Elongated slots are recommended to account for the temperature-related expansion of the material.



Recycled profiles are only partially paintable due to their properties. Good results have been obtained using permanently elastic plastic paints (all-weather paints) together with a roughened surface and priming. Permanent paint adhesion cannot be guaranteed.



hanit® products can be nailed both conventionally and with nail guns. Due to the compact surface, it is, however, more difficult to penetrate the profiles than it would be with wood. Consider this when fixing.



Compared to wood or metal products, plastic has lower stiffness and greater flexibility. These special material properties must be observed accordingly when planning distance between supports in dock, fence, and patio construction.



If profiles are hammered, we recommend using a ram or a corner protector to prevent damage to the product.



Boards, thresholds, and square profiles must not be press-fitted. The profiles may exhibit length variations of +/- 1.5% due to temperature fluctuations. An expansion distance (expansion joint) must therefore be maintained during installation.



Sunlight affects the profile alignment, and can, for example, cause fence posts to tilt. To prevent profile distortion caused by sunlight, the profiles should not be stored loosely.



We have structural verification tests, installation recommendations, and mounting instructions for many products and applications. For more information please visit www.hahnkunststoffe.com

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BUILDING AND CONSTRUCTION



FENCING AND BARRIERS



GROUNDWORK AND SURFACES



OUTDOOR SPACES AND FURNITURE



HAHN Kunststoffe GmbH has been certified and authorised to use the "Blue Angel" eco-label since 2005.

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