

# SADDAR Eco-System Durable in its nature



aesthetics durability

does not require maintenance



www.SADDAR.eu orders@SADDAR.eu

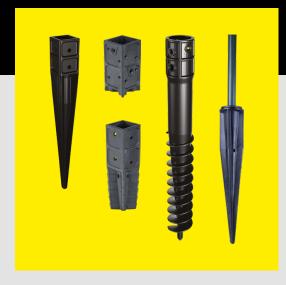
#### **About us**

We are a family company that has been successfully operating for over 30 years on Polish and international markets. We have developed and implemented innovative and unique ecological anchors, on a global scale. EWe produce SADDAR Eco-Anchors from a specially developed PET composite material, which is unique on a global scale. It is a chemically modified and glass-fibre reinforced composite material with high impact resistance, stiffness and tensile strength. The SADDAR Eco-Anchor system is widely used in construction, installation of photovoltaic farms and garden architecture.

Our products are fully ecological and meet the requirements of a closed-loop economy.

All our products are manufactured in our factory located in Marki near Warsaw. Modern production lines allow us to implement specific projects of our customers and deliver finished products on time. Our machinery allows us to process approximately 30 types of thermoplastics. We also offer the services of regranulation, modification and enriching the plastics as well as injection of details with means of our proprietary or entrusted moulds.

SADDAR is much more than a small business "made in Poland". Thanks to our innovative proprietary solutions, we have found our own distinctive place among the producers and suppliers of steel anchors and we successfully conquer the markets of Western Europe and the United States.









# **Advantages of SADDAR Eco-System**

SADDAR composite Eco-Anchors have been designed for maximum durability. In important functional areas responsible for breaking stresses, bending stresses, impact strength and stiffness, they are even **6 times** thicker than steel sheet anchors. **By combining the durability of PET material and our innovative technology, we have obtained strong and reliable products.** 







#### **Aesthetics**

We offer composite anchors with a modern design, in a durable and practical form. Our products are manufactured with particular focus on appearance and performance parameters.

#### **Durability and strength**

Our composite Eco-Anchors provide a much longer service life, surpassing the service life that is expected from traditional metal anchors. Our eco-friendly anchors require no maintenance after installation, which means there are no additional maintenance costs. This gives you savings every year. Our products do not rust!







# **Technology**

#### **Innovation**

Thanks to our know-how, we implement the most technologically advanced designs, beginning with the idea and ending with their implementation. The production of SADDAR Eco-Anchors required the development of a manufacturing technology for high-strength PET material modified with several chemical ingredients and reinforced with fibreglass. The shape and dimensions of SADDAR Eco-Anchors have been designed to ensure their exceptional durability, e.g.:

- thickened cross-sections in all places responsible for breaking, bending and impact stresses,
- in important areas of their functionality, SADDAR Eco-Anchors are several times thicker than steel sheet anchors.



reinforcement of openings and walls in the socket for the post



water drainage holes, soil softening when driving the anchor, system that distributes the mixture of water, cement and aggregate.



SHR system (Socket's screw holes reinforced with additional material).
SHR reinforces the walls and screw holes in the socket for the post with a special composite sprue.



thickened cross-sections applied in the places of increased stresses



structural elements that absorb the energy of driving force – SDS (Stress Distribution System)



optimized curved ring geometry, to strengthen the structure





locking system that strengthens the anchoring of FSS Sytem (Fins and Step System to improve stability)

- optimized anchor geometry guaranteeing maximum strength
- Anchors are affected by 2-times lower maximum stresses than in the comparable steel sheet base
- a special composite reinforced with fibreglass increases stiffness and durability;
   it guarantees 100% resistance to rain, snow, frost and ice



#### **Tests**

Before starting the production of SADDAR Eco-Anchors, the design is subjected to a strength analysis.

Thanks to advanced computer programs for FEM analyses (finite element method), we determine the weakest points of the new product geometry and then correct it. By repeating this activity several times, we achieve an optimise model of the SADDAR Eco-Anchor and thus guarantee maximum durability.

Additionally, thanks to the use of high-pressure injection technology, we can develop SADDAR Eco-Anchors with more complex shapes than steel anchors.

#### **Patents**

The created Saddar Eco-anchor system is protected by copyright (industrial designs, patent no. P.419267).

#### **Certificates**

SDS (Stress Distribution System):

- to are specially designed elements that cushion and absorb the driving force energy
- also include thickened cross-sections in the fins of the Saddar Eco-Anchor blade, which are responsible for breaking stresses, bending stresses and impact strength
- The SDS system also prevents the accumulation of force (energy) of impacts at the bottom of the socket of the post.
- The SDS system also transfers the driving energy (force) directly to the fins of the SADDAR Eco-Anchor blade, eliminating the risk of damaging the Eco-Anchor at time of driving impact.

SHR system (Screw holes of the socket reinforced with additional material). SHR reinforces the walls and screw holes in the socket of the post with a special composite sprue. This unique plastic sprue ensures:

- stability of mounting the post in the anchor socket,
- stabilizes the screws and increases the strength of the connection
- increases the strength of the post embedded in the anchor against the pressure of lateral force
- ensures greater aesthetics of mounting

FSS system is the system of locks strengthening the anchoring (fins and step system to improve stability)

#### **Audits:** TÜV Rheinland **Bureau Veritas Leroy Merlin** Kingfisher Intertek **Poland** (commissioned (commissioned Germany by The Home (commissioned by OBI Germany) Depot USA) by Hornbach Germany) Kingnisher



# **Ecology**

The basic PET raw material used for its production comes from recycled resources and is an important environmental protection constituent, as well as contributes to the transformation of post-consumer plastic waste into a fully valuable new product.

We also save the planet by using the recycled PET bottles.

The production of 1.5 million Eco-Anchors per year means that we recycle up to 30 million plastic bottles, by using 20 bottles to produce one SADDAR Eco-Anchor.





Our activities are consistent with **the assumptions of closed-circuit economy**, **also known as the circular economy**. This is the economic model of the future in which resources circulate in a closed loop. We produce all products from PET raw material, which comes from the recycled plastic bottles. The composite produced in this way is widely used in the production of SADDAR Eco-Anchors and it has various applications in the construction industry. Each

used in the production of SADDAR Eco-Anchors and it has various applications in the construction industry. Each of our products can be recovered and processed into a composite and have a second or even third life. Similarly, in a closed-loop economy, the product life cycle is closed in a loop and it can be indefinitely repeated, at least in theory.

On our finite planet, raw material resources are limited, and we have practically no space for throwing away the waste. Today, apart from limited natural resources, climate changes are another limitation that cannot be surpassed.

The closed-loop economy is the answer to these challenges. In a closed loop, the end of a product's life cycle is also the beginning of a new product's life cycle. In terms of our Eco-Anchors, the end of life of a plastic bottle gives origin to the composite from which we produce products with a wide range of applications. In other words, all waste is used and we maximise the added value of the waste. We use as many as 20 PET bottles for each Eco-anchor.

SADDAR Eco-System is an environmentally friendly alternative to metal products.



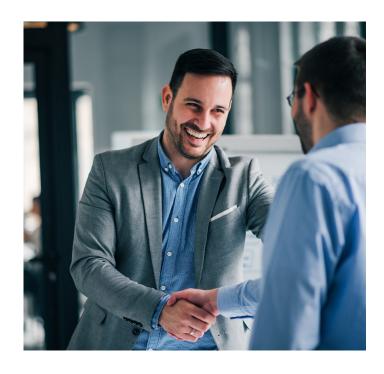
# Cooperation

#### Price list and offer

We offer a wide selection of composite anchors and other accessories for fences and terraces, available on the European and American markets. They are available in a wide range of colours and at attractive and low prices, when compared to alternative metal products.

#### **Deliveries**

We understand the importance of fast and efficient delivery of your order is the business. We use safe and reliable courier services to ensure the quickest delivery of our products. We ship small orders within 1-3 business days, while large orders on pallet are possibly delivered within 5 business days.





#### **Our customers**







































# Reputation

#### Reviews

We supply the highest quality composite products in Europe and the USA. In addition to guaranteeing high-quality products, we take customer service very seriously and are proud of hundreds of satisfied customers!

We receive reviews from the largest e-commerce market in the world. At EBAY, customers rate us with 5 stars. We are proud of 100% positive reviews. We have already collected a total of 1,000 reviews!



"I have now completed my project and I can report that the fence post spikes are excellent. I was wor-ried that they would not be sturdy enough to be knocked into fairly solid ground, but this certainly wasn't the case. I had to use a lot of the brute force to remove a mispositioned one and it look at that I threv at it. I can only recommend on my experience"

"Super quick service, fantastic product. I would recommend these for all garden structures."

SADDAR FENCE POST SPIKE DRIVE IN ANCHOR SUPPORT HOLDER (#353476357845)

"Great product and finished off my fence project perfectly. Much better than overpriced items in DIY stores. Spit on sizing. Very happy"

SADDAR ECO COMPOSITE PLASTIC FENCE POST CAPS – PYRAMID SQUARE

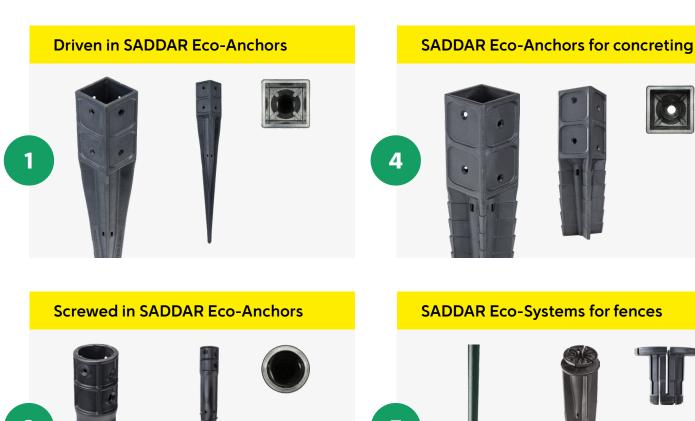
"H, thanks for early delivery and product looks fantastic. Engr308"

SADDAR FENCE POST SPIKES DRIVE IN ANCHOR SUPPORT HOLDER



### Offer

We offer a wide selection of composite anchors and other accessories for fences and terraces in a wide range of colours and attractive prices, when compared to alternative metal products. Our portfolio includes dozens of product models grouped into five main categories: SADDAR Eco-Anchors can be driven or screwed into almost any type of ground or surface. Eco-Anchors can be fastened or embedded in concrete. We also produce Eco-Posts and dedicated Eco-Anchors that fit commonly used fencing systems. Full offer of our products available on www.saddar.eu











# **Driven in SADDAR Eco-Anchors**

This is the most diverse and most popular category of SADDAR products among customers. In this range, we offer driven-in Eco-Anchors for square posts in four quality standards (standard, standard plus, excellent and high quality) and in a variant with notches for mounting the boards. This range of products is complemented by SADDAR Eco-Anchors for round posts in the standard plus and giganto versions.

They are perfect for building various types of fences, terraces, pergolas, summerhouses, playgrounds and other structures.



# 1A

#### PSK WST driven-in Eco-Anchor for square posts | Standard type







# Available sizes

Name	Dimensions in mm
PSK WST 46x46x550G	46x46x550
PSK WST 46x46x600G	46x46x600
PSK WST 51x51x550G	51x51x550
PSK WST 51x51x600G	51x51x600
PSK WST 61x61x750G	61x61x750
PSK WST 71x71x750G	71x71x750
PSK WST 76x76x750G	76×76×750
PSK WST 76x76x900G	76×76×900
PSK WST 71x71x900G	71×71×900
PSK WST 91x91x750G	91x91x750
PSK WST 91x91x900G	91x91x900

# 1B

#### PSK WSP driven-in Eco-Anchor for square posts | Standard Plus type







Dimensions in mm
71×71×610
71×71×750
71×71×900
75x75x610
75×75×750
75×75×900
91x91x610
91x91x750
91x91x900



# **Driven in SADDAR Eco-Anchors**

**1C** 

#### PSK WEX driven in Eco-Anchor for square posts | Excellent type







#### **Available** sizes

Name	Dimensions in mm
PSK WEX 71x71x750G	71×71×750
PSK WEX 71x71x900G	71×71×900
PSK WEX 76×76×750G	76x76x750
PSK WEX 76×76×900G	76x76x900
PSK WEX 91x91x750G	91x91x750
PSK WEX 91x91x900G	91x91x900
PSK WEX 98x98x750G	98×98×750
PSKWEX 98x98x900G	98x98x900
PSK WEX 101×101×750G	101×101×750
PSK WEX 101x101x900G	101×101×900

1D

#### PSK WHQ driven-in Eco-Anchor for square posts | High Quality type







#### **Available** sizes

Name	Dimensions in mm
PSKWHQ 71x71x750 G	71×71×750
PSKWHQ 91x91x750 G	91x91x750
PSKWHQ 91x91x 900 G	91x91x900
PSKWHQ 101x101x750 G	101×101×750
PSKWHQ 101×101×900 G	101×101×900

1E

#### PSK WEW driven-in Eco-Anchor for square posts | Excellent type with notches







Nazwa	Dimensions in mm
PSK WEW 91x91x750G	91x91x750
PSK WEW 91x91x900G	91x91x900





# **Driven in SADDAR Eco-Anchors**

1F

#### PSO WST/WSP driven-in Eco-Anchor for round posts | Standard and Standard Plus types







#### **Available** sizes

Name	Dimensions in mm
PSO WST 61x550G	61x550
PSO WST 61x600G	61x600
PSO WSP 81x610G	81x610
PSO WSP 81x760G	81x760
PSO WSP 101x610G	101×610
PSO WSP 101x760G	101×760
PSO WSP 101x900G	101×900

1G

#### PSO WSG driven-in Eco-Anchor for round posts | Giganto type







Name	Dimensions in mm
PSO WSG 101x900G	101×900
PSO WSG 121x900G	121x900





# **Screwed in SADDAR Eco-Anchors**

An alternative to driven-in anchors are SADDAR screwed-in Eco-Anchors, offered for both square and round posts. Unlike driven-in models, they allow for precise adjustment of their alignment in the ground and easy levelling of structures, which are built with means of them.

They are perfect for building various types of fences, terraces, pergolas, summerhouses, playgrounds and other structures.



#### PSO SCR screwed-in Eco-Anchor for round posts | Excellent type









#### **Available** sizes

Name	Dimensions in mm
PSO SCR 61x565G	Ø 61x575
PSO SCR 61x675G	Ø 61x675

#### PSK SCR screwed-in Eco-Anchor for square posts | Excellent type







Name	Dimensions in mm
PSK SCR 71x71x600G	71×71×600
PSK SCR 71x71x720G	71×71×720
PSK SCR 76x76x600G	76×76×600
PSK SCR 76x76x720G	76x76x720
PSK SCR 91x91x600G	91x91x600
PSK SCR 91x91x720G	91x91x720





# **Screwed on SADDAR Eco-Anchors**

In implementations with hard concrete surface to be developed, SADDAR screwed-on Eco-Anchors will be an excellent solution. Unlike steel products, SADDAR products do not have an external flange and can be screwed on in perfect alignment with a vertical wall, thus creating new possibilities of arrangement.

New possibilities of arrangement thanks to innovative and attractive design.





#### PSK PXX screwed-on Eco-Anchor for square posts | Excellent type







Name	Dimensions in mm
PSK PXX 71x71x175G	71x71x175
PSK PXX 76x76x175G	76x76x175
PSK PXX 91x91x175G	91x91x175
PSK PXX 101x101x175G	101×101×175
PSK PXX 141x141x175G	141×141×175





# **SADDAR Eco-Anchors for concreting**

The diverse range of SADDAR products is complemented by Eco-Anchors intended for concreting. They are perfect for demanding, hard and rocky soils. Models intended for placing square wooden poles in the ground.

They are perfect for building various types of fences, terraces, pergolas, summerhouses, playgrounds and other structures.





#### PSK BHQ Eco-Anchor for concreting, for square poles | High Quality Type







# Available sizes

Name	Dimensions in mm
PSK BHQ 71x71x330G	71x71x330
PSK BHQ 91x91x310G	91x91x310
PSK BHQ 101x101x310G	101×101×310
PSK BHQ 75x75x330G	75x75x330



#### PSO BHQ Eco-Anchor for concreting, for round posts | Hight Quality type



Name	Dimensions in mm
PSO BHQ 81x310	81x310
PSO BHQ 101x310	101x310





# **SADDAR Eco-System for fences**

The SADDAR Eco-System for fences includes various types of ready-made sets of ecological posts and matching anchors with proprietary engineering solutions. The sets consisting of Eco-Posts and perfectly matched Eco-Anchors enable easy installation of the posts, without any digging, and can also be combined with a traditional steel mesh fence or a fence panel. SADDAR Eco-Systems for fences are compatible with commonly available connectors. At the customer's request, we can deliver a set with connectors. Our offer includes round Eco-Posts, which are easily installed with dedicated Eco-Anchors via a special snap ring, and rectangular Eco-Posts, mounted with means of standard SADDAR Eco-Anchors. The offer includes SADDAR Eco-Hoods produced in three standard sizes for wooden square poles.

They can be used as a regular fence, animal enclosure or protection of the object.



#### RSXG/Z20 - round Eco-Posts | PSO WSO Eco-Anchors for round posts



5A

#### Post sizes available

Name	Dimensions in mm
RSXG20 38x1000	Ø 38x1000
RSXG20 38x1250	Ø 38x1250
RSXG20 38x1500	Ø 38x1500
RSXG20 38x1750	Ø 38x1750
RSXG20 38x2000	Ø 38x2000
RSXZ20 38x1000	Ø 38x1000
RSXZ20 38x1250	Ø 38x1250
RSXZ20 38x1500	Ø 38x1500
RSXZ20 38x1750	Ø 38x1750
RSXZ20 38x2000	Ø 38x2000
RSXG20 34x1000	Ø 34x1000
RSXG20 34x1250	Ø 34x1250
RSXG20 34x1500	Ø 34x1500
RSXG20 34x1750	Ø 34x1750
RSXG20 34x2000	Ø 34×2000

Name	Dimensions in mm
RSXZ20 34x1000	Ø 34x1000
RSXZ20 34x1250	Ø 34x1250
RSXZ20 34x1500	Ø 34x1500
RSXZ20 34X1750	Ø 34x1750
RSXZ20 34x2000	Ø 34x2000
RSXZ20 42x1000	Ø 42x1000
RSXZ20 42x1250	Ø 42x1250
RSXZ20 42x1500	Ø 42x1500
RSXZ20 42x1750	Ø 42x1750
RSXZ20 42x2000	Ø 42x2000
RSXZ20 60x1000	Ø 60×1000
RSXZ20 60x1250	Ø 60x1250
RSXZ20 60x1500	Ø 60x1500
RSXZ20 60x1750	Ø 60x1750
RSXZ20 60x2000	Ø 60x2000



Dimensions in mm
Ø 38x610
Ø 38x760
Ø 34x610
Ø 34x760
Ø 42x610
Ø 42x760





# **SADDAR Eco-System for fences**



#### SCXG6/GB6/G7 - Square Eco-Posts

5B







**Post** sizes available

Name	Dimensions in mm
SCXG6x12	60x40x120
SCXG6x15	60x40x150
SCXG6x18	60x40x180
SCXGB6x12	60x60x120
SCXGB6x15	60x60x150
SCXGB6x18	60x60x180
SCXG7x12	70x70x120
SCXG7x15	70x70x150
SCXG7x18	70x70x180

#### **CSK XXX SADDAR Eco-Caps**





Name	Dimensions in mm
CSK XXX 71x71G	71×71
CSK XXX 75×75G	75×75
CSK XXX 91x91G	91x91
CSK XXX 71x71Z	71×71
CSK XXX 75×75Z	75×75
CSK XXX 91x91Z	91x91
CSK XXX 71x71 B	71×71
CSk XXX 75x75B	75×75
CSK XXX 91x91 B	91x91



# **Accessories**

We have prepared specially designed rammers to meet the expectations of our customers and to make the installation of SADDAR Eko-Anchors as easy as possible. Similarly to SADDAR Eco-Anchors, these rammers are an ecological product manufactured from SADDAR composite.

The Rammers, similarly to SADDAR Eco-Anchors, are an ecological product manufactured from SADDAR composite.



WBK XXX - double-sided SADDAR Eco-Rammer for installation of square pole anchors with socket dimensions 71x71 and 91x91

WBO XXX - SADDAR Eco-Rammer for installation of anchors for round posts





**Available** sizes

Name	Dimensions in mm
WBK XXX 71x71/91x91x210	71x71/91x91x210







Name	Dimensions in mm
WBO XXX 81/101x210	81x101x210



WBS XXX - SADDAR Eco-Rammer for installation of Eco-Anchors for round posts





Name	Dimensions in mm
WBS XXX 50x90x180	50x90x180





# SADDAR® Eco-System We invite you to cooperate









