

RUBBER BALLISTIC SYSTEMS FOR SHOOTING RANGES & TRAINING CENTRES

FOR MILITARY, LAW ENFORCEMENT, RECREATIONAL USE



SHIELDTAC®

Areas of application: Shooting ranges & training centres



Military



Law Enforcement



Recreation

Overhead baffles

Cladding for overhead baffles in outdoor shooting ranges
SHIELDTAC® ricotile

Bullet trap

Protection from ricochets and rebounds
SHIELDTAC® ricotile, blocks, fragsafe

Outdoor range

Non-slip, weather-resistant flooring
SHIELDTAC® pavers, ricotile

Shooting, supervision and guidance areas

SPORTEC® color (FR), giga

Shooting range flooring

Seamless PU safety flooring
SHIELDTAC® ricosys PU

Wall & ceiling

Protection from ricochets and rebounds
SHIELDTAC® ricotile

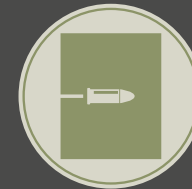
Tactical Houses

Temporary or permanent walls
SHIELDTAC® blocks

Convincing advantages & properties



Safe impact and ricochet protection for floors, walls and ceilings



Absorption of projectiles



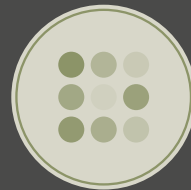
Safety testing (bullet tests, fire tests (up to B_{fl}), electrostatic behaviour, etc.)



Significant reduction in noise emissions



Low odour and emission-tested (VOC A+)



Wide range of products in many sizes and colours



Easy-to-install and easy-to-renovate system



Easy cleaning and maintenance



Recycled materials



Made in Germany – in-house development and production

PRODUCTS FOR SHOOTING RANGES AND TRAINING CENTRES

Walls, ceilings, overhead baffles



SHIELDTAC® ricotile

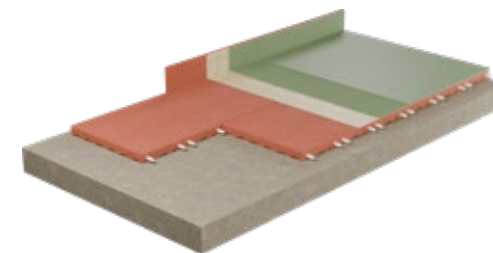
500 x 500 x 40 mm
500 x 500 x 70 mm
1,000 x 500 x 40 mm
1,000 x 500 x 43 mm



SHIELDTAC® ricotile FR

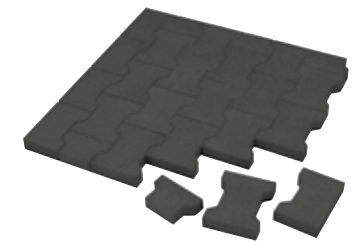
1,000 x 500 x 43 mm

Flooring & skirting boards



SHIELDTAC® ricosys PU & skirting board

3-layer PU system – details can be found
in the technical data



SHIELDTAC® pavers

For outdoor shooting ranges

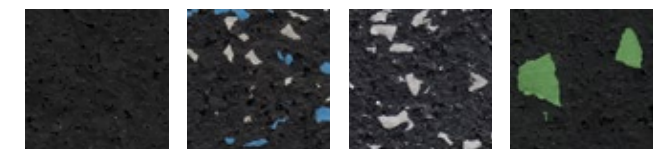
Bullet traps



SHIELDTAC® block

For front-on shooting –
absorption of projectiles

Shooting, supervision and guidance areas



SPORTEC® color 0, color, color FR, giga

Rolls available in 6–12 mm
in various colours

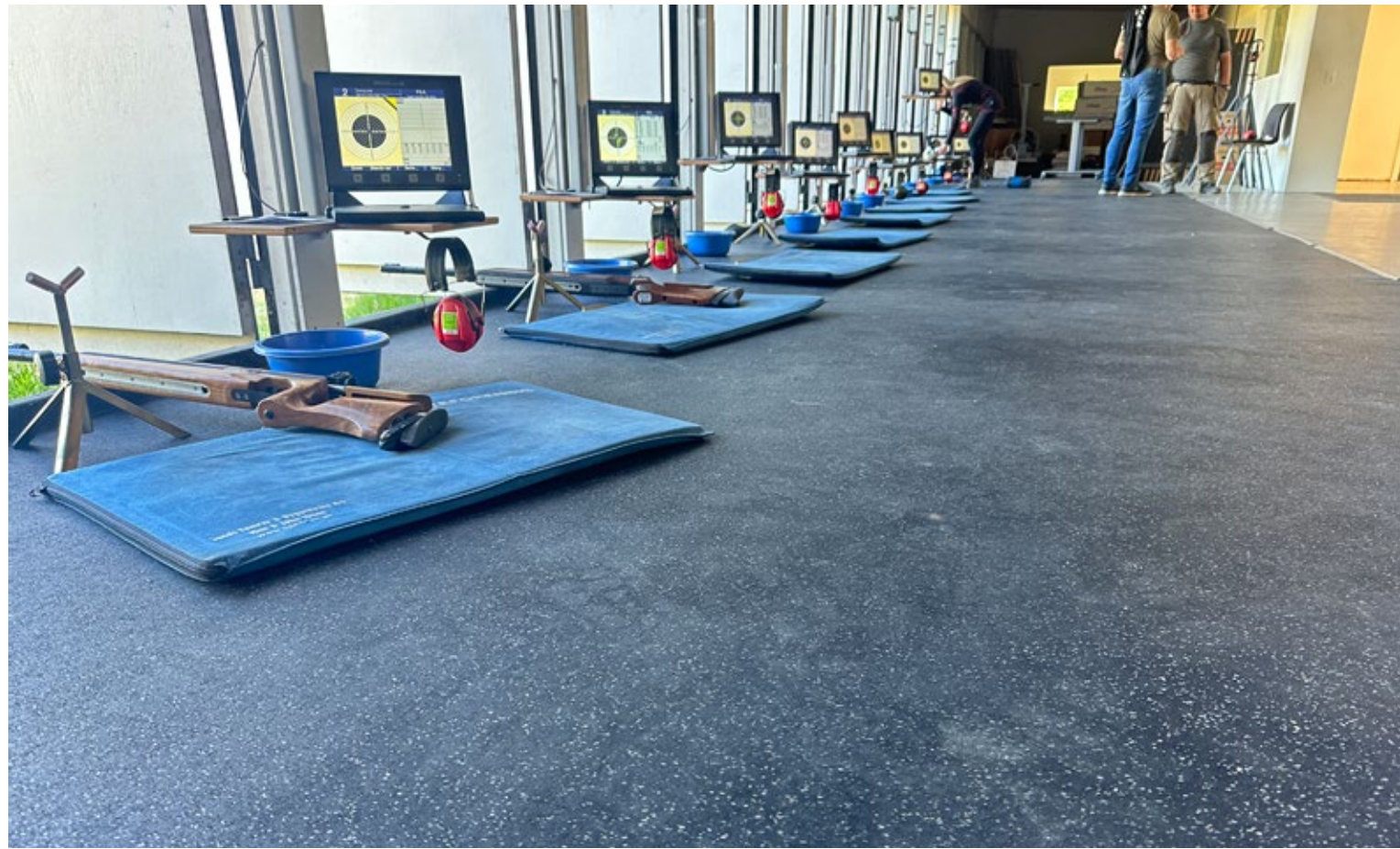
Note: All technical details and colours can be found in the last pages of this brochure.

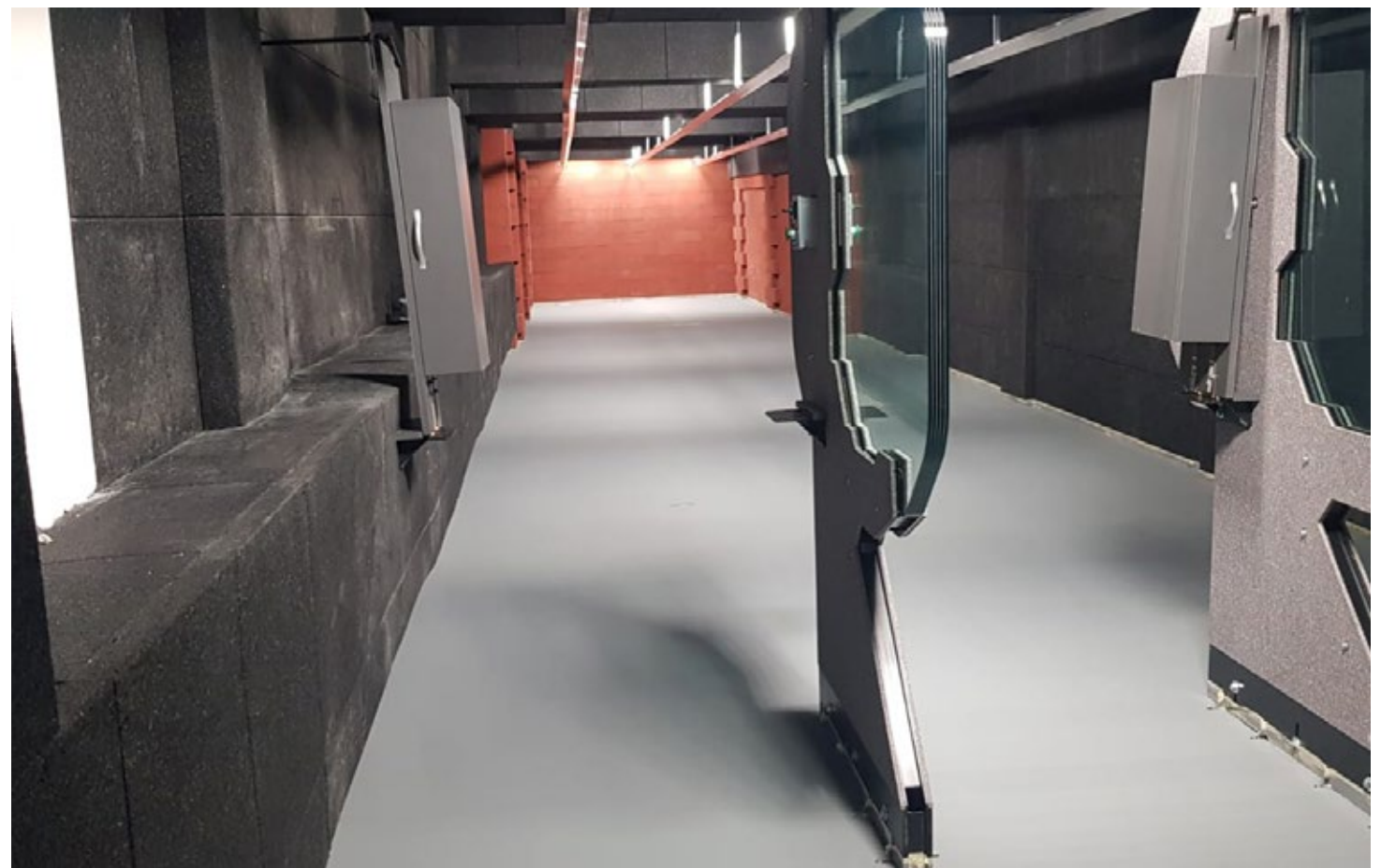
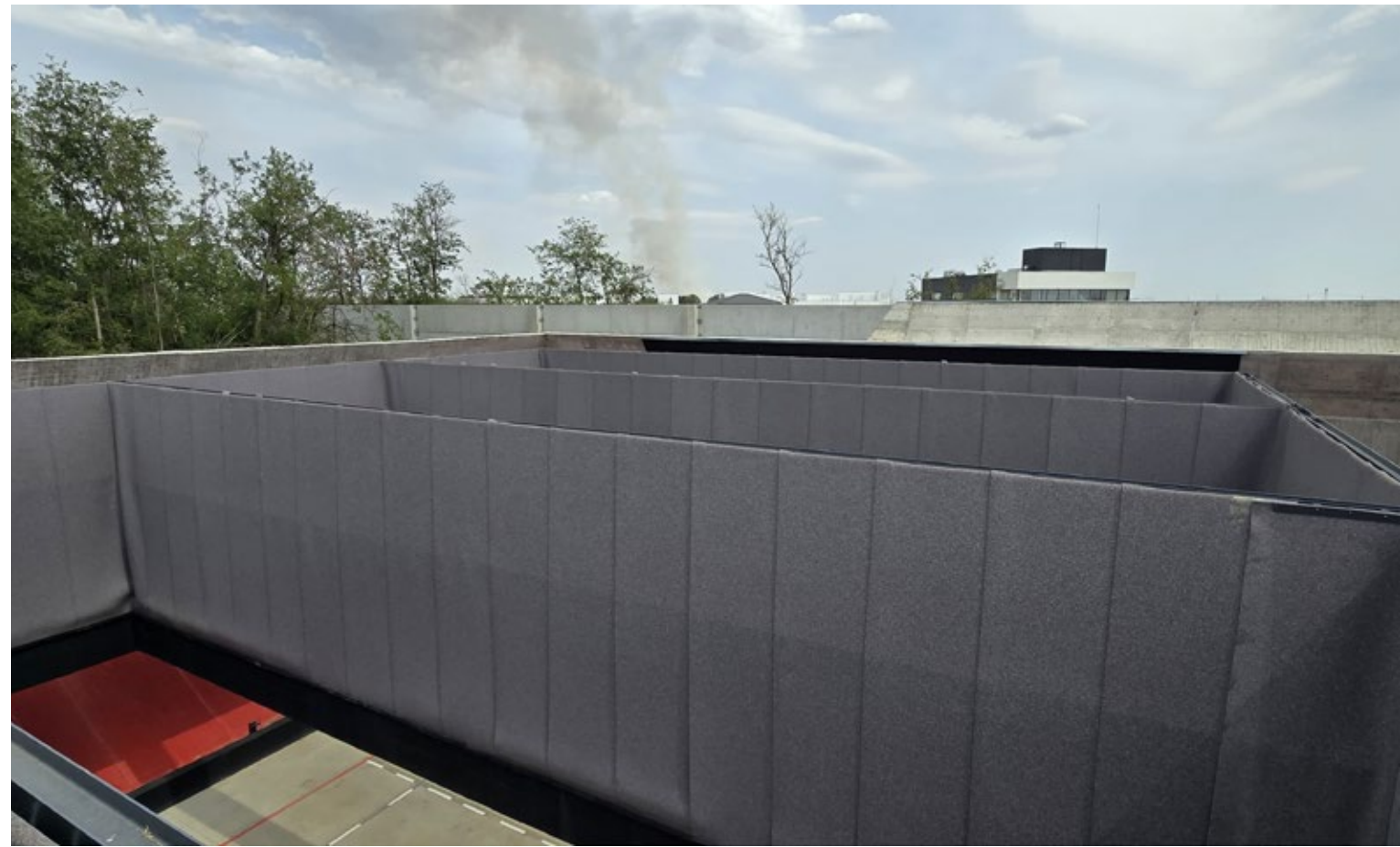
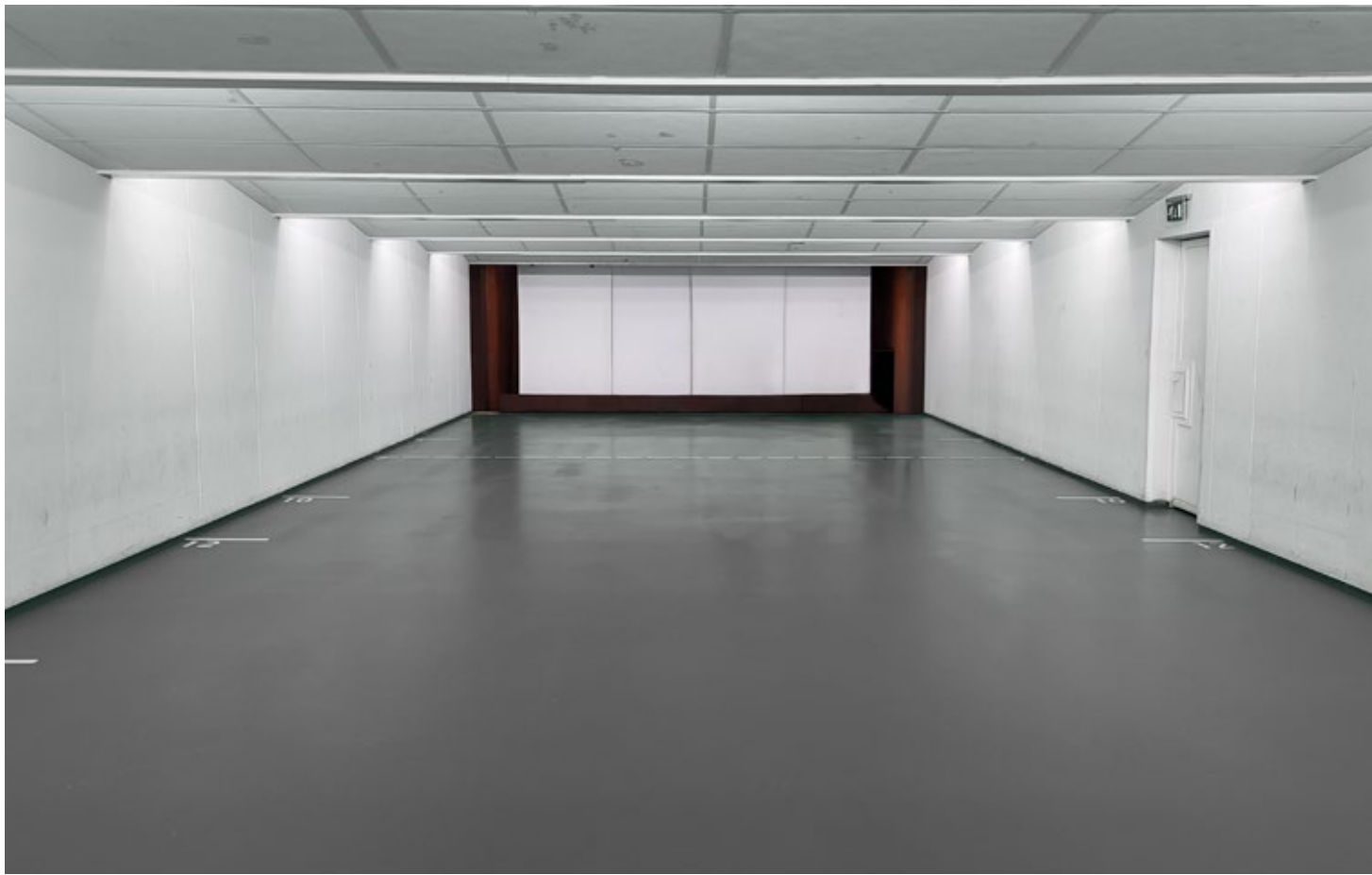
PRODUCT TESTING: FOR GUARANTEED SAFETY IN SHOOTING RANGES

Inspections and tests	ricosys PU 43+2 mm	ricosys PU 60+2 mm	ricotile 40 mm	ricotile 43 mm	ricotile 70 mm	ricotile FR 43 mm	blocks	fragsafe	pavers	Eco-Series
Ballistic testing	VPAM-ARG version 3 for civilian and official use 200-7,000 J including additional projectiles, e.g., lead-free and 10° angle (HTBLVA Ferlach)	German Armed Forces Operating and Testing Instructions, Version 4, based on VPAM ARG 2012, for 400–6,000 J, including a 15° angle (Munich Proof House)	Shooting range guidelines for 200–10,000 joules, including slugs (Munich Proof House); Section 27a and Section 58(23) of the Weapons Act, ranging from 200 to 7,000 J (Authorised Shooting Range Expert); German Armed Forces Operating and Testing Instructions, Version 4, based on VPAM ARG 2012, for 400–6,000 J, including a 15° angle (Munich Proof House)	Section 27a and Section 58(23) of the Weapons Act, ranging from 200 to 7,000 J (Authorised Shooting Range Expert)	German Armed Forces Operating and Testing Instructions, Version 4, based on VPAM ARG 2012, for 400–6,000 J, including a 15° angle (Munich Proof House)	VPAM-ARG version 3 for civilian and official use 200-7,000 J including additional projectiles, e.g., lead-free and 10° angle (HTBLVA Ferlach)	In-house test procedure covering 300–3,500 J (Munich Proof House); Section 27a and Section 58(23) of the Weapons Act, ranging from 200 to 7,000 J (Authorised Shooting Range Expert) Ballistic tests (TNO, The Hague, Netherlands)	Section 27a and Section 58(23) of the Weapons Act, ranging from 200 to 7,000 J (Authorised Shooting Range Expert)	German Armed Forces Operating and Testing Instructions, Version 4, based on VPAM ARG 2012, for 400–6,000 J, including a 15° angle (Munich Proof House)	Shooter's standing position – no firing test required
Fire behaviour according to DIN EN 13501-1	B _{fl} -s1	available in 2027	E _{fl}	E _{fl}	E _{fl}	C _{fl} -s1	E _{fl}	-	E _{fl}	C _{fl} -s1 (color FR)E _{fl} (color, giga)
Sound absorption (α _w) according to DIN EN ISO 354:2003-12	-	-	Dimples on the top; 50 mm distance from the wall: α _w 0.75	-	-	50 mm distance from the wall: α _w 0.60	20 cm deep block with no gap to the wall: α _w 0.75	-	-	-
Impact sound improvement (dB) according to DIN EN 10140-3	ΔL _w = 20dB	-	ΔL _w = 28dB	-	-	ΔL _w = 23dB	-	-	26 dB	4 mm = 15 dB 6 mm = 16 dB 8 mm = 18 dB
Slip resistance class according to DIN 16165	R10 including Class C (wet, barefoot areas)		R10 including Class C (wet, barefoot areas)			R10 including Class C (wet, barefoot areas)	-	-	R10 including Class C (wet, barefoot areas)	R10
Electrostatic behavior according to DIN EN 1815	0.9 kV (antistatic)		0.5 kV (antistatic)	0.5 kV (antistatic)	0.5 kV (antistatic)	0.0 kV (antistatic)	-	-	0.5 kV (antistatic)	0.0 kV (antistatic)
German general building inspection approval	application 12/2025, approval ~2027		-			-	-	-	-	-
Emissions (VOC)	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+

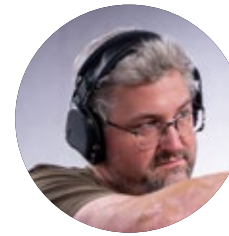
Test certificates and further test results available on request.

Extensive product testing is at the heart of the SHIELDTAC® brand. Outstanding product quality as well as safety and comfort at shooting ranges are our top priorities.





WHAT SHOOTING RANGE EXPERTS THINK ABOUT SHIELDTAC®



The core component of any indoor shooting range is the safety flooring. The safety flooring from KRAIBURG Relastec – brand name SHIELDTAC® – is a 3-component PU system. The substrate consists of rubber granulate tiles. After the tiles have been laid, the pores are sealed and the PU layer and a finisher are applied. The big advantage is that the PU surface is completely matt after curing and does not reflect light. Personally, I prefer the more muted colours.

Erich Schmidt

Owner of the Pilsting Hunting and Shooting Sports Centre



We have installed SHIELDTAC® safety flooring in multiple shooting ranges across Romania and have consistently achieved excellent results. The material is easy to handle for our installation teams, the matte PU finish ensures a non-reflective surface, and the overall system provides strong impact and splinter protection. The certified tests and the additional solutions, such as block and fragsafe, complete the product range and increase its reliability. From our experience, SHIELDTAC® is a robust and high-quality flooring system for shooting facilities.

Octavian Ardac

General Manager, Sonerg Montaj SRL, Romania



We have been a KRAIBURG Relastec partner for many years and use, among other products, the 40 mm and 43 mm tiles. We particularly prefer the 43 mm tiles (new name SHIELDTAC® ricotile), as they are more rigid and require fewer screws for wall installation, which makes the mounting process faster. In addition, the 43 mm version has become a standard required by authorities. The 40 mm tiles have also proven themselves over the years and are especially popular for export projects. Besides wall and ceiling installations, we also like to use the 43 mm SHIELDTAC® ricosys PU as a closed surface finishing floor.

Sophie Dardenne

CK Technology sprl – shooting range equipment, Belgium

Technical Data

SHIELDTAC® ricotile



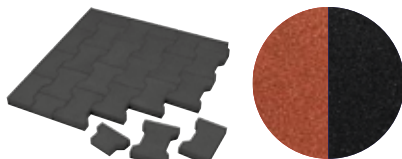
Material	PU-bonded rubber
Dimensions	500 x 500 x 40 mm 500 x 500 x 70 mm (only in red and black) 1,000 x 500 x 40 mm 1,000 x 500 x 43 mm (only in red and black)
Fire resistance	E _{fl} (B2) (DIN EN 13501-1)

SHIELDTAC® ricotile FR



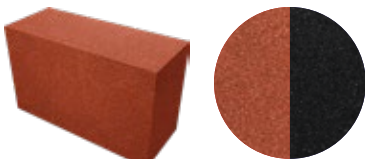
Material	PU-bonded rubber
Dimensions	1,000 x 500 x 43 mm
Fire resistance	C _{fl} -s1 (B1) (DIN EN 13501-1)

SHIELDTAC® pavers



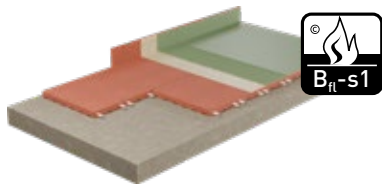
Material	PU-bonded rubber
Dimensions	200 x 165 mm (full) 100 x 165 mm (half) 200 x 140 mm (starter)
Thickness	43 mm

SHIELDTAC® block



Material	PU-bonded rubber
Dimensions	500 x 300 x 200 mm 250 x 300 x 200 mm
Fire resistance	E _{fl} (B2) (DIN EN 13501-1)

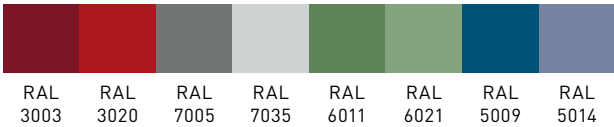
SHIELDTAC® ricosys PU



3rd layer: SHIELDTAC® ricosys Finisher

3

Available colours



2nd layer: SHIELDTAC® ricosys Protector

The protector is supplied in the finisher colour. The protector shines after application and only becomes matt as desired when the finisher is applied.

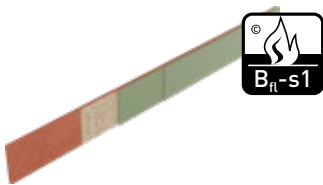
2

1st layer: SHIELDTAC® ricosys Pore Filler

1

SHIELDTAC® ricotile

SHIELDTAC® skirting board

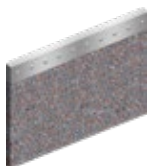


Material	Colored, two-component polyurethane coating
Consumption	approx. 150 g/m ² by applying on SHIELDTAC® ricosys Protector
Recoatable [20 °C]	after approx. 16 hours and a maximum within 48h
Packaging	Set of 10 kg: mixing ratio of Resin Base : Hardener = 825 : 175

Material	Solvent-free, two-component polyurethane coating
Consumption	approx. 2600 g/m ² by applying on SHIELDTAC® ricosys Pore Filler
Recoatable [20 °C]	after approx. 16 hours and a maximum within 48h
Packaging	Set of 25 kg: mixing ratio of Resin Base : Hardener = 760 : 240

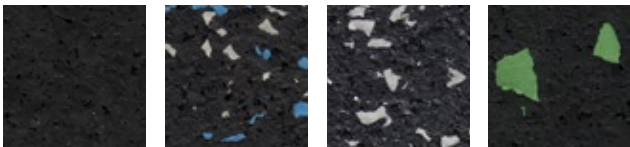
Material	Solvent-free two-component polyurethane pore-sealer
Consumption	approx. 1.3 kg/m ²
Recoatable [20 °C]	after approx. 16 hours and a maximum within 48h
Packaging	Set of 25 kg: mixing ratio of Resin Base : Hardener = 800 : 200

SHIELDTAC® fragsafe



Material	PU-bonded rubber
Thickness	6, 8, 10 mm
Roll width	1,250 mm
Roll length	length [m] [± 1.5 %] / thickness [mm]: 20/6, 15/8, 12/10

SPORTEC® color 0, color, color FR, giga

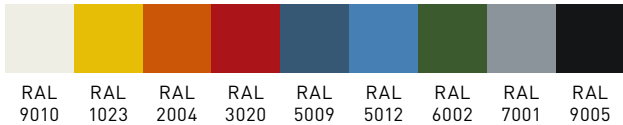


Material	PU-bonded rubber
Thickness	color & color 0: 4, 6, 8, 10, 12 mm color FR: 4, 6, 8, 10 mm giga: 6, 8, 10 mm
Roll width	1,500 mm
Roll length	length [m] [± 1,5 %] / thickness [mm]: 30/4, 20/6, 15/8, 12/10, 10/12

for ricosys PU: Line Marking Paint GLP-MW



2-component, water-based and lightfast PU lining paint for indoor use. Other colours are available on request.



for ricosys PU: repair kit

Repair kit

The repair is a 3 component kit consisting of ricosys Protector, ricosys Finisher and an accelerator. With just a few drops of PU accelerator AC 3180, the PU material hardens quickly and the floor can be used again the next day. Depending on the extent of the damage, 1 kit can repair around 20 areas with approx. 50 ml per impact point.

More technical data:
please visit www.shieldtac.com



General Installation Instructions for floors

Required tools

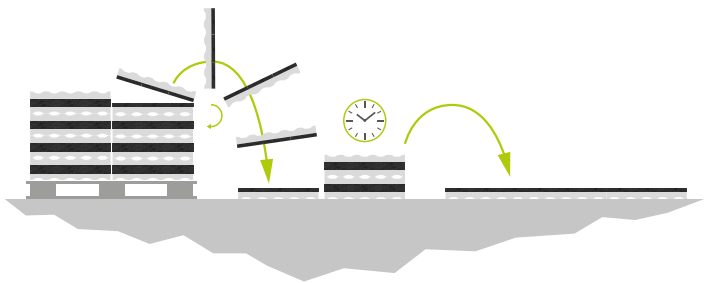
gloves, measuring tape, cutter, chalk line, jigsaw and rubber hammer for tiles, pressure roller for rolls

additional for ricosys PU: squeegee, rake, mixer, protective eyewear (for mixing)



Acclimatisation

The floor covering should be unstacked from the pallet before laying and stored 1-2 days where it will be laid.

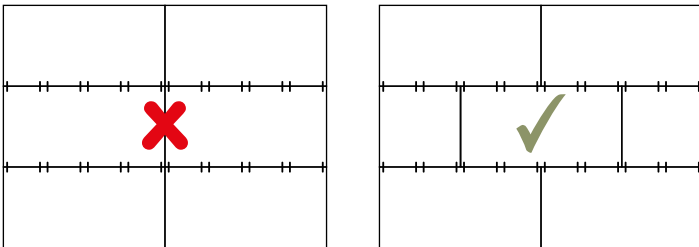


Adhesive (700 g/m² for tiles, rolls 400 g/m²)

Please add the required quantity to your order.

Installation of tiles

Our tiles are designed for installation without adhesive and should be laid in T-joints. The tiles are connected to each other using the pre-installed connectors.



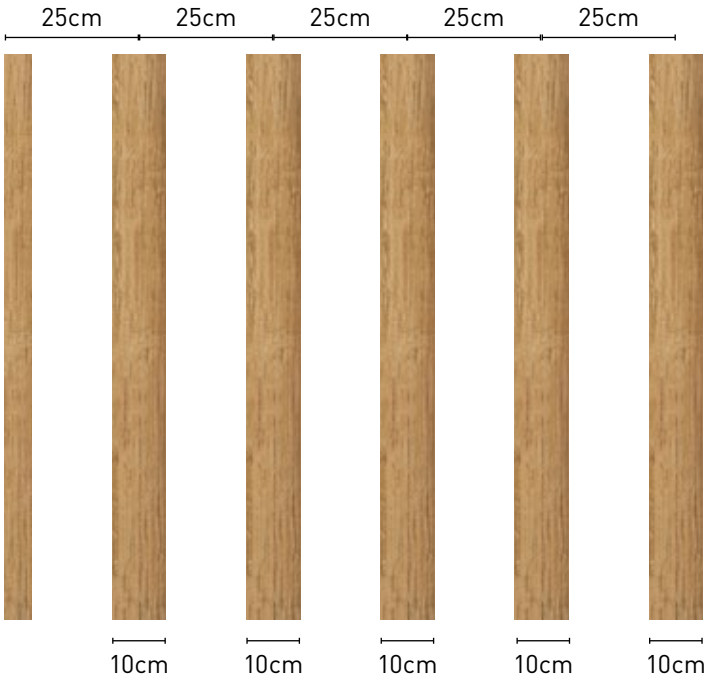
All tiles can be cut with a jigsaw, an industrial cutter or a table saw.

Slight unevenness in the substrate can be neglected as the tiles level them out. Please do not hesitate to contact us for more detailed advice.

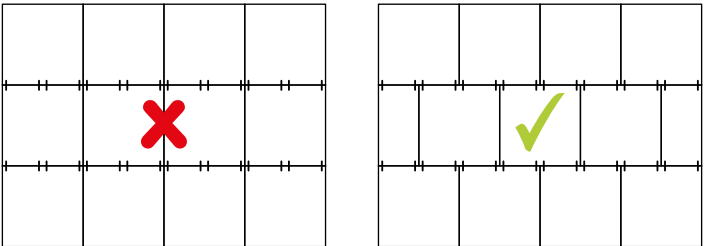


Installation of SHIELDTAC® ricotile on walls

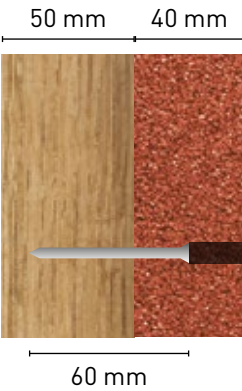
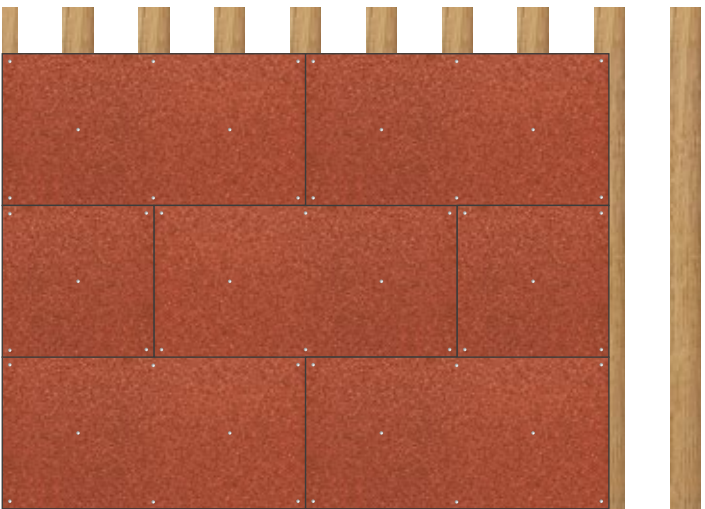
For installation, fasten wooden slats (approx. 10cm width) with dowel and screw by that way that it carries the weight of the tiles. Fit the wooden slats regular in a distance of 25cm to each other on the wall.



Our tiles are designed for installation without glue and should be installed in T-joints to the wooden slats. The tiles are connected to each other using the pre-installed connectors and fastened to the wooden battens with screws. All tiles can be cut to size with a jigsaw, industrial cutter or table saw.



To fix the tiles to the wooden slats, screws are screwed at a distance of approx. 3cm from the corner of the tile and in such a way that the screw screws into the wooden slat, the screw head disappears into the tile and the tile is pressed against the wooden slat. In addition, a screw is used in the middle of the panel. For a 1,000 mm wide panel, eight screws are to be used.



More details can be found in the SHIELDTAC® ricotile installation instructions. For more information about the installation of SHIELDTAC® ricosys PU, please visit www.shieldtac.com





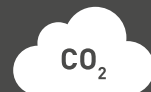
SUSTAINABILITY

Corporate Carbon Footprint, Product Carbon Footprint, Energy Management, Social and economic sustainability at KRAIBURG Relastec



Recycling of up to 60,000 t material

Every year, we process and recycle up to 60,000 tons of old tyres, closed-cell rubber and rubber production scrap.



Reduction of CO₂ emissions

By using recycled rubber granulate, we save more than 130,000 tonnes of CO₂ emissions per year compared to virgin rubber.



Corporate & Product Carbon Footprint

The CCF was developed in accordance with the Greenhouse Gas Protocol. The PCF is calculated in accordance with ISO 14067 and ISO 14040/44 audited.



Environmental Product Declarations (EPDs)

Environmental Product Declarations (EPDs) are available for many products. You can download them from the relevant product pages or via kraiburg-relastec.com/en/epd



Energy management according to ISO 50001

Our energy management system is identified according to ISO 50001. Energy-relevant topics are taken into account in all processes of the organisation.



Certified environmental management system

Our environmental management system is certified in accordance with DIN EN ISO 14001:2015. This guarantees that an effective environmental management system is integrated and continuously improved.



Member of NEW LIFE initiative

The declared aim of NEW LIFE is to demonstrate the advantages of recycled products from End-of-Life Tyres (ELT) to the media, politicians and the general public and to motivate them to act sustainably. More information: www.initiative-new-life.de/en



Recycling of end-of-life products

For us, sustainability means taking responsibility for the entire product life cycle. That is why we offer an in-house recycling service for end-of-life rubber granulate products. Find out more here: kraiburg-relastec.com/en/circular



Voluntary rating

The ecovadis rating is an evaluation of companies with regard to CSR topics. This includes ethical aspects, sustainable procurement, the environment and ecological sustainability.



CORPORATE CULTURE

Defined values, social norms and guidelines, for common action and cooperation inside and outside KRAIBURG Relastec.



Equal opportunities

We stand for equal opportunity, diversity, inclusion and religious diversity.



Social responsibility

Fair pay, collective bargaining, further training, career development, work-life integration.



Respect

We are honest, reliable, respectful and trustworthy towards our colleagues and partners.



Strong decision-making powers

We ensure speed in process handling, faster technology optimisations and lean processes.



Responsible for our actions

We take responsibility for all decisions and results. Error acceptance is firmly anchored in our culture.



Transparency

We practice open, transparent cooperation both inside and outside the company.



WHAT SETS US APART



Internationality

With an export quota of over 50%, we have already exported our products to over 100 countries.



Easy complaint management

Transparent and optimised processes ensure rapid processing.



Flexibility with customer requirements

We offer our partners customised options for packaging, labelling and delivery, packaging, labelling and delivery.



Long-term relationships

We maintain long-term relationships with our customers and suppliers based on mutual respect and fairness.



Marketing support

We provide you with the best possible support in the form of images or in the design of your documents.



Personal contact persons

We do not hide behind support hotlines and contact forms. With us, you have personal, competent contact persons.



Product quality

Our products meet the highest quality standards. They are durable, a perfect fit and made from high-quality raw materials.



Innovation and product design

We continuously develop new products according to the requirements of our customers and the market.



Rubber ballistic systems
made from PU-bonded rubber

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