



PVC
SPORT
FLOORING

FLOORING

THE ULTIMATE FLOORING,
THE ULTIMATE PERFORMANCE





THE NEW GENERATION OF POLYURETHANE SURFACES

Grabo's new surface treatment combines state-of-the-art technology with a customized, special lacquer formula. With several months of development work, our engineering team has developed lacquer formulas that best meets the specific requirements of each application. This results in excellent chemical resistance, very easy cleaning and outstanding scuff resistance of our sports floor products.

WHAT ARE THE MOST IMPORTANT FEATURES OF THE X-PUR SURFACE FOR USERS?



1. OUTSTANDING SCUFF RESISTANCE

Easy to remove shoe marks from X-PUR surface due to its special double-curing process.



2. AESTHETIC MATT SHINE

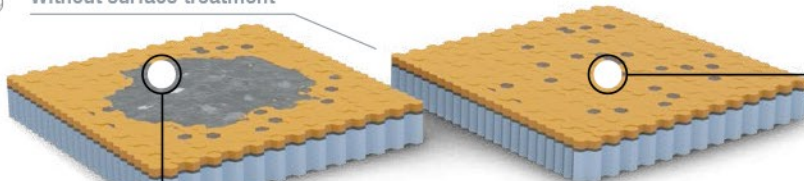
In the first cross-linking step, under N₂ atmosphere, with a narrow spectrum UV laser, a micro-structured surface is formed that disperses the incident light beams, resulting in an aesthetic matt surface. Thus, it is not necessary to use a matting agent in the technology, which tends to settle, thereby reducing manufacturing safety and uniform product quality.



3. EASY CLEANING

In addition to the special formula- easy cleaning of the surface is due to the completely imporous, closed surface.

Without surface treatment



BEFORE CLEANING

AFTER CLEANING



surface treatment



4. DURABILITY

It has two pillars. On one hand, the perfectly cross-link structured closed layer, created with the double curing is harder and more resistant than conventional PUR layers. On the other hand, the abrasion resistant lacquer is applied to the surface in two layers. For these reasons, the product's surface does not need to be treated throughout its lifetime.





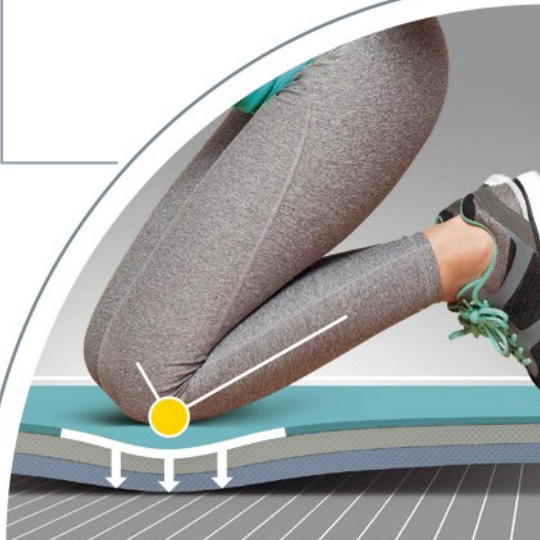
WHY GRABO SPORTS FLOORING?

WIDE RANGE OF PRODUCTS/APPLICATIONS

- Solutions for competition, training and leisure.
- More options for several applications from kindergartens, fitness centers and to sports facilities for highest level of competition.
- 2-10,3 mm thick sport floorings, special coverings and accessories.

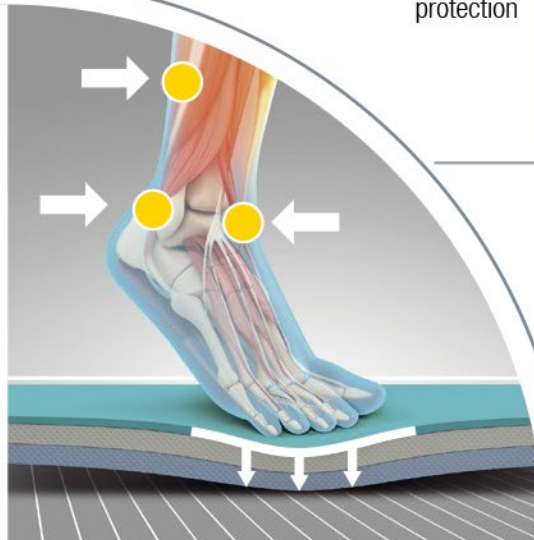
REDUCED INJURY RISK

Optimum vertical deformation
Comfort and protection



LONG TERM PROTECTION

Excellent shock absorption
Genuine joint and cartilage protection



EASY DIRECTION CHANGE

Coefficient of friction between 0,4-0,7
Optimal balance of grip and slide



SUPERIOR FOR BALLSPORTS

Outstanding ball rebound
Imposing sporting performance



ECOLOGICAL FORMULA



MEGA
IS GOLD MEDAL
WINNER OF THE
RESPONSIBLE
CARE AWARD 2022



High shock
absorption due to
the bottom foam
layer.

► Comfort and protection

Optimized deformation shape
and high energy return through
the upper foam layer.

► Easy direction change



GraboSAN
treatment stops
the spread of
germs.

► Reduced risk of contamination in case of injury.



Due to its special
top layer, periodical
renewal is not
necessary.

Therefore the flooring can be
used continuously.

► Reduced life cycle costs, less chemicals and less energy consumption.



Made by
technological
procedures
without using
solvents or heavy metals.

► Less environmental impact.



Available in 2
meter wide rolls,
therefore less
welding, less
joints.

► Quick and cost effective installation.



GRABO'S RECOMMENDATION



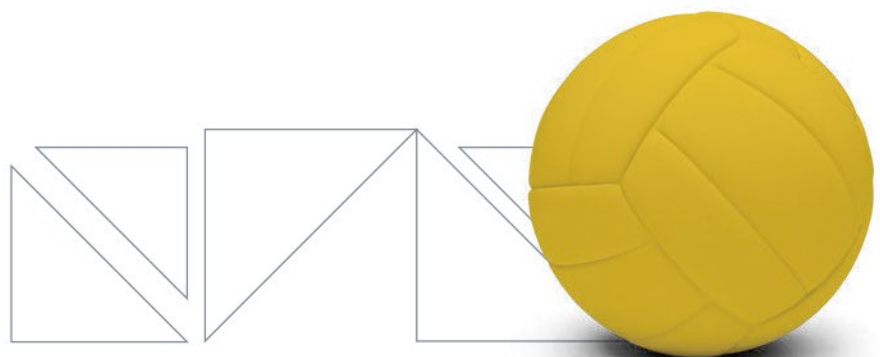
SPORTS

	VARIUSE	MEGA	EXTREME	SUPREME
Aerobic	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Badminton	Highly recommended		Highly recommended	Highly recommended
Basketball	Highly recommended	Recommended	Highly recommended	Highly recommended
Body building				
Cardio training				
Dance	Good			
Fencing	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Floorball	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Futsal	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Gymnastics	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Handball	Highly recommended	Recommended	Highly recommended	Highly recommended
Indoor hockey	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Locker room				
Martial arts	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Squash				
Table tennis	Recommended			
Tennis				
Volleyball	Highly recommended	Recommended	Highly recommended	Highly recommended
Wheelchair sports	Recommended			

FACILITY

Multipurpose hall	Highly recommended		Recommended	Recommended
Competition sport facility	Highly recommended	Good	Highly recommended	Highly recommended
Multisport room	Highly recommended	Highly recommended	Highly recommended	Highly recommended
University, collage	Highly recommended	Recommended	Highly recommended	Highly recommended
School, kindergarten	Highly recommended	Highly recommended	Highly recommended	Highly recommended
Fitness center, gym	Highly recommended	Good	Recommended	Recommended

Highly recommended | Recommended | Good

[illegible]



VariUse – THE MULTIPURPOSE

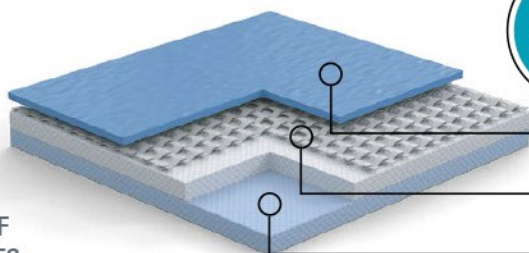
PERFECT SOLUTION FOR SPORT AND NON-SPORT EVENTS

- genuine joint protection – shock absorption category **P1**
- outstanding sport properties
- indentation resistant
- durable
- easy-to-maintain

VARIUSE



THE NEW GENERATION OF
POLYURETHANE SURFACES



THICKNESS
6.2
mm

X-PUR
Wear Layer
Glass Fiber
Reinforcement
Combined
Foam Backing



International
Handball
Federation



FIBA
EQUIPMENT
& VENUE

P1
EN 14904

25-35%
shock absorption
Highly protective
sports floor

BENEFITS

FOR FACILITY MANAGERS

- **Two in one product**
 - Excellent for sport and non-sport activities
 - No protective covering, no extra personnel is needed to protect your floor
- **Durable X-PUR surface**
 - Wear and scuff-resistant
 - Easy-to-clean
- **Stable construction**
 - Low indentation
 - Dimensional stability – due to its fibre glass reinforcement
- **15-year guarantee**

FOR USERS

- **Safe basis of sport performance**
 - Long term joint and cartilage protection, due to its combined foam backing
 - Thanks to its optimal surface adhesion which allows quick direction change while protects against slipping
- **Perfect choice for non-sport events**
 - Excellent walking comfort
 - Long-life, stain and chemical resistant product

FOR CONTRACTORS

- **Easy and quick installation**
 - Less welding – 2 meter wide rolls
 - Short relaxation time – tension free product





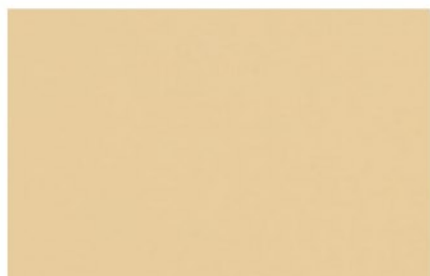
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1596



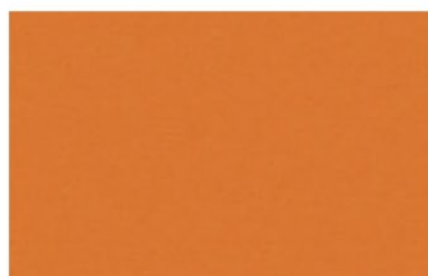
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2089



3096



3338



7483



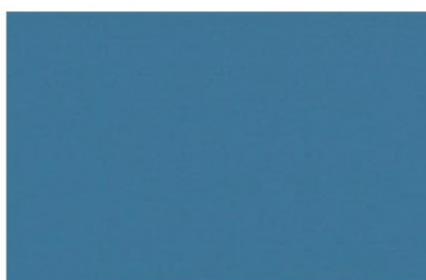
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7143



6115



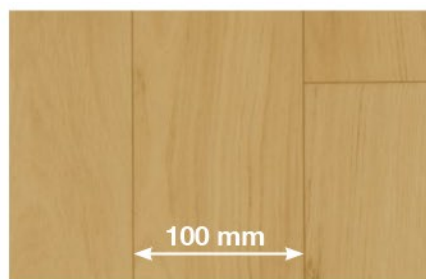
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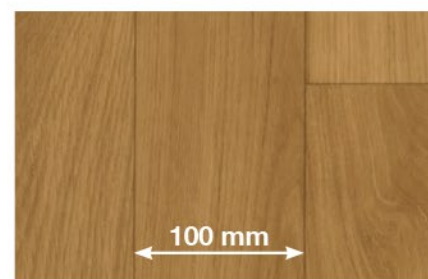
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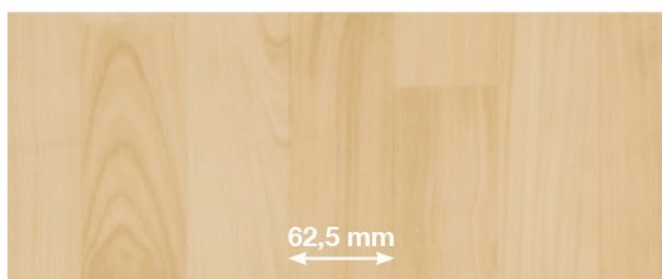
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2519-371



2209-371



2000-378



386-868



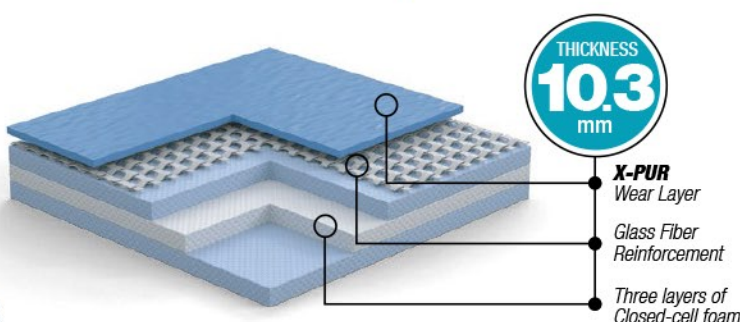
COMPETITION SPORT

- High shock absorption due to its Combined Foam Backing > **Long term joint and cartilage protection**
- Stable construction and outstanding ball rebound > **Ideal for game ball sports**
- Excellent foam quality, optimal vertical deformation > **Reduced risk of injury, higher underfoot comfort**
- Due to its graboSAN treatment > **Stops the spread of germs**
- 2 m wide rolls > **Less welding and joints**

MEGA



THE NEW GENERATION OF POLYURETHANE SURFACES



FIBA
EQUIPMENT & VENUE



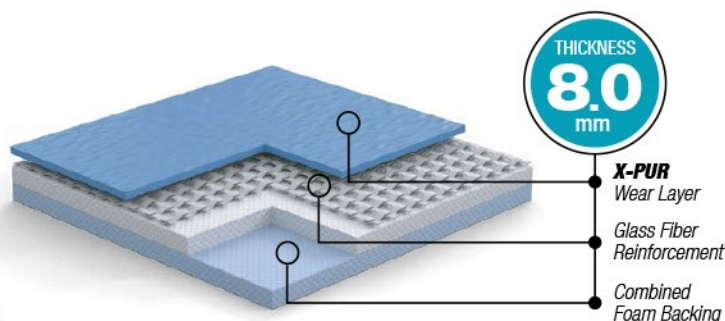
P3
EN 14904

≥ 45%
shock absorption
Highly protective
sports floor

EXTREME



THE NEW GENERATION OF POLYURETHANE SURFACES



International
Handball
Federation



FIBA
EQUIPMENT & VENUE



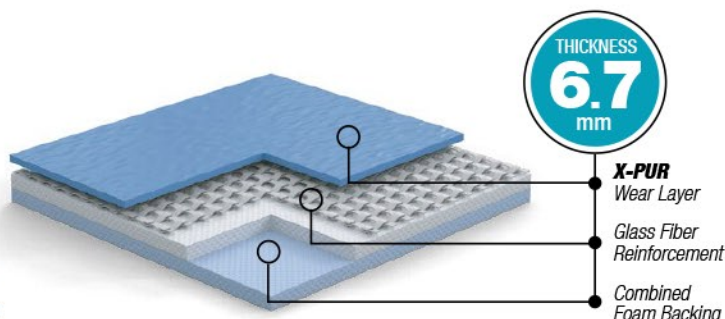
P2
EN 14904

35-45%
shock absorption
Highly protective
sports floor

SUPREME



THE NEW GENERATION OF POLYURETHANE SURFACES



International
Handball
Federation



FIBA
EQUIPMENT & VENUE



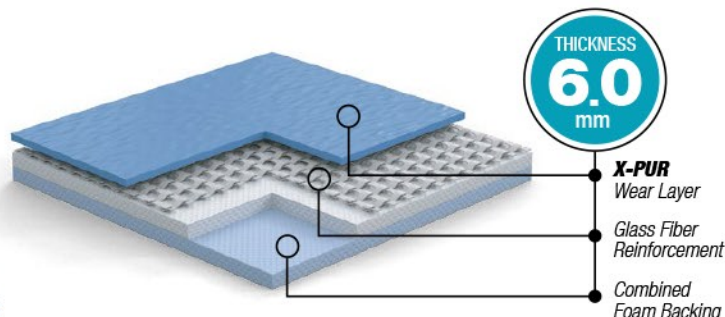
P1
EN 14904

25-35%
shock absorption
Highly protective
sports floor

ELITE



THE NEW GENERATION OF POLYURETHANE SURFACES



FIBA
EQUIPMENT & VENUE

P1
EN 14904

25-35%
shock absorption
Highly protective
sports floor





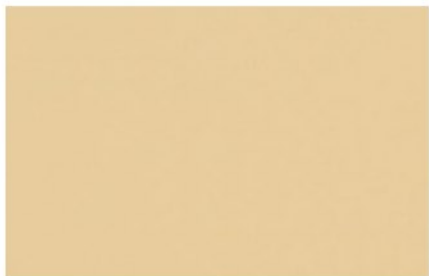
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1596 | *



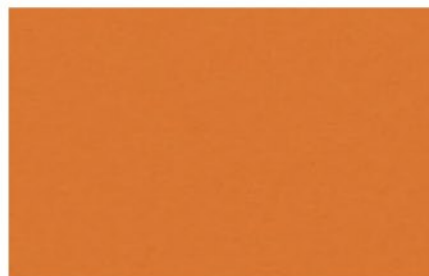
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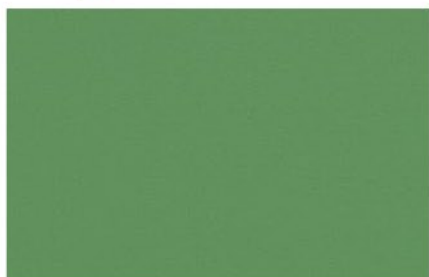
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3096 | *



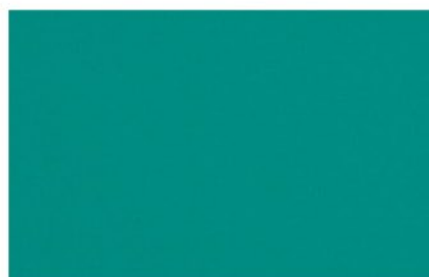
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7483



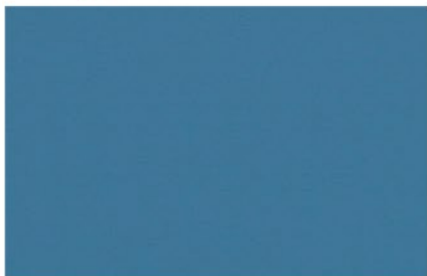
7539 | *



7143 | *



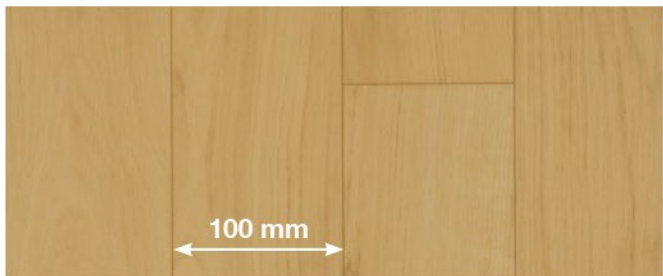
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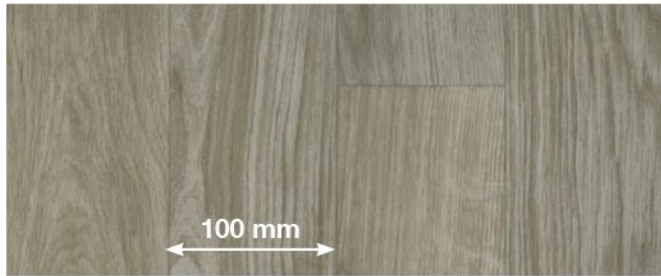
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6470 | *



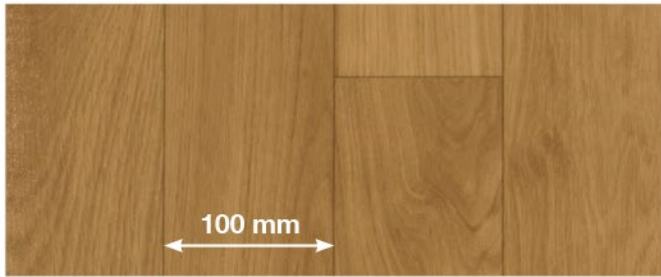
2519-371



1171-371 | *



2000-378 | *



2209-371 | *



IN CASE OF ELITE THE MOQ IS 800 M²



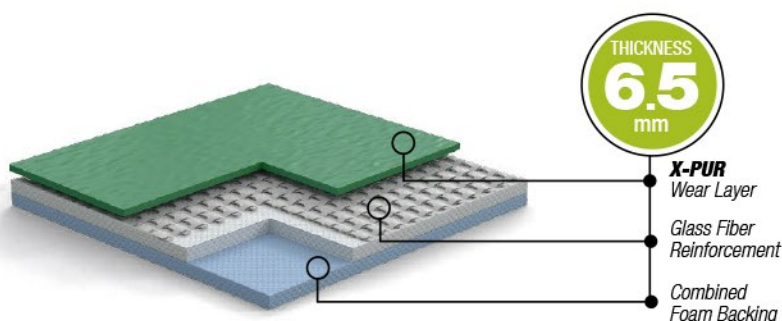
FITNESS, LEISURE AND MULTISPORT FOR SCHOOLS

- Coefficient of friction between 0,4-0,7 > **Optimal balance of grip and slide**
- Easy to clean without periodical polishing > **Less energy consumption, less maintenance cost**
- Optimal specular gloss
- Solvent and heavy metal free products
- 100 % recyclable
- Contains pre-consumer recycled materials
- Light weight and flexible; Available in rolls > **Easy and quick installation**
- 2 m wide rolls > **Less welding and joints**

GYMFIT 65



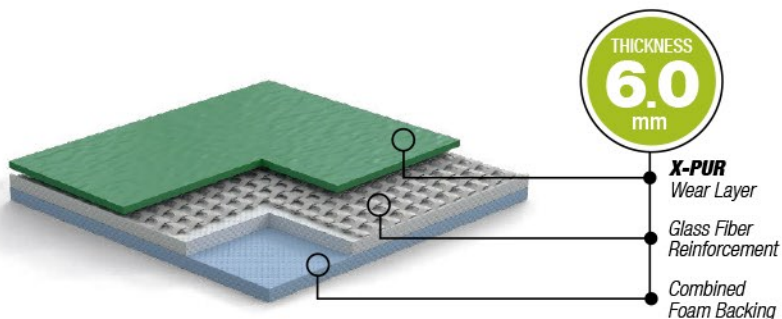
THE NEW GENERATION OF POLYURETHANE SURFACES



GYMFIT 60



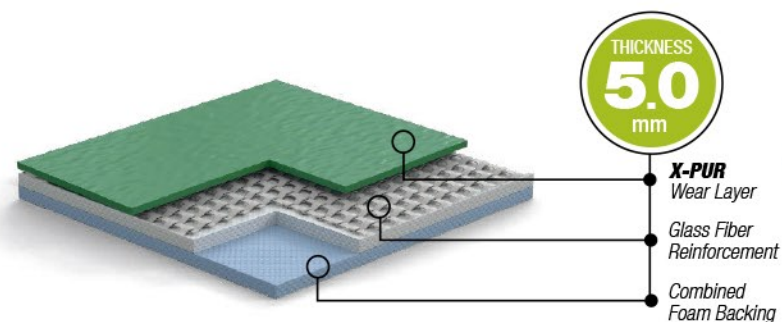
THE NEW GENERATION OF POLYURETHANE SURFACES



GYMFIT 50

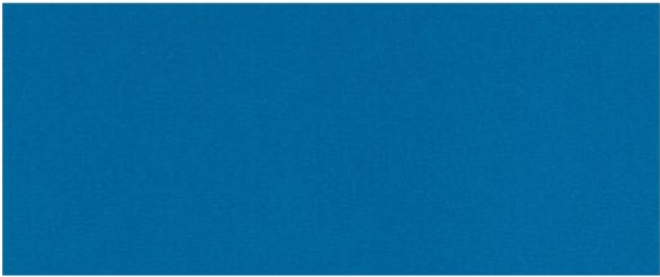


THE NEW GENERATION OF POLYURETHANE SURFACES

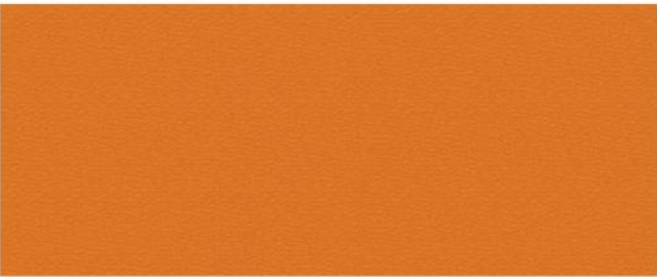




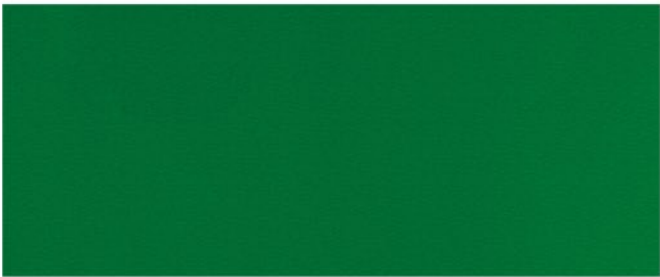
1360-279



6215-279



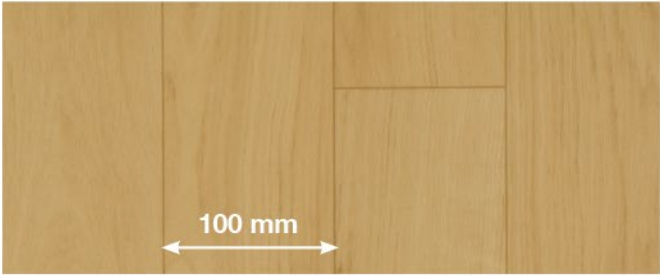
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7338-279



5016-279



2519-371-279

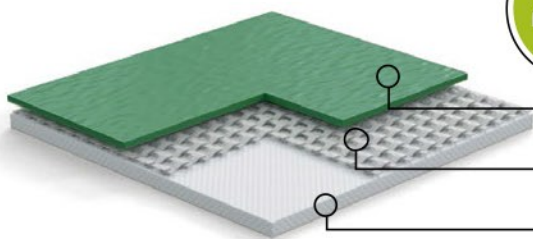




FOR KIDS

- Coefficient of friction between 0,4-0,7 > **Easy direction change**
- No periodical polishing required > **Less energy consumption, less maintenance cost**
- Optimal specular gloss
- Solvent and heavy metal free; low VOC > **Environmentally sound solution**
- 100 % recyclable
- Contains pre-consumer recycled materials
- Light weight and flexible; Available in rolls > **Easy and quick installation**
- 2 m wide rolls > **Less welding and joints**

START



THICKNESS
4.0
mm

PURSurface
Wear Layer

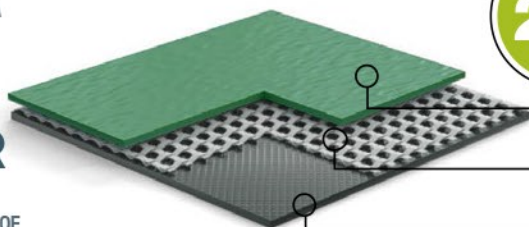
Glass Fiber
Reinforcement

Closed-cell
foam

STAMINA



THE NEW GENERATION OF
POLYURETHANE SURFACES

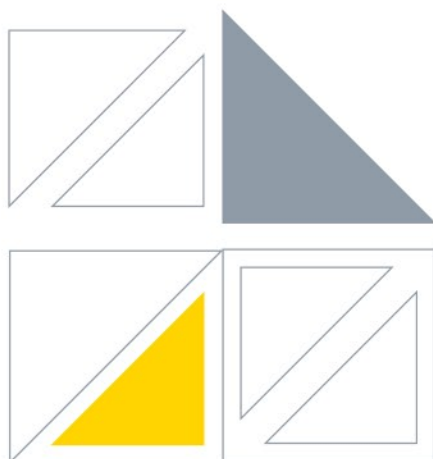
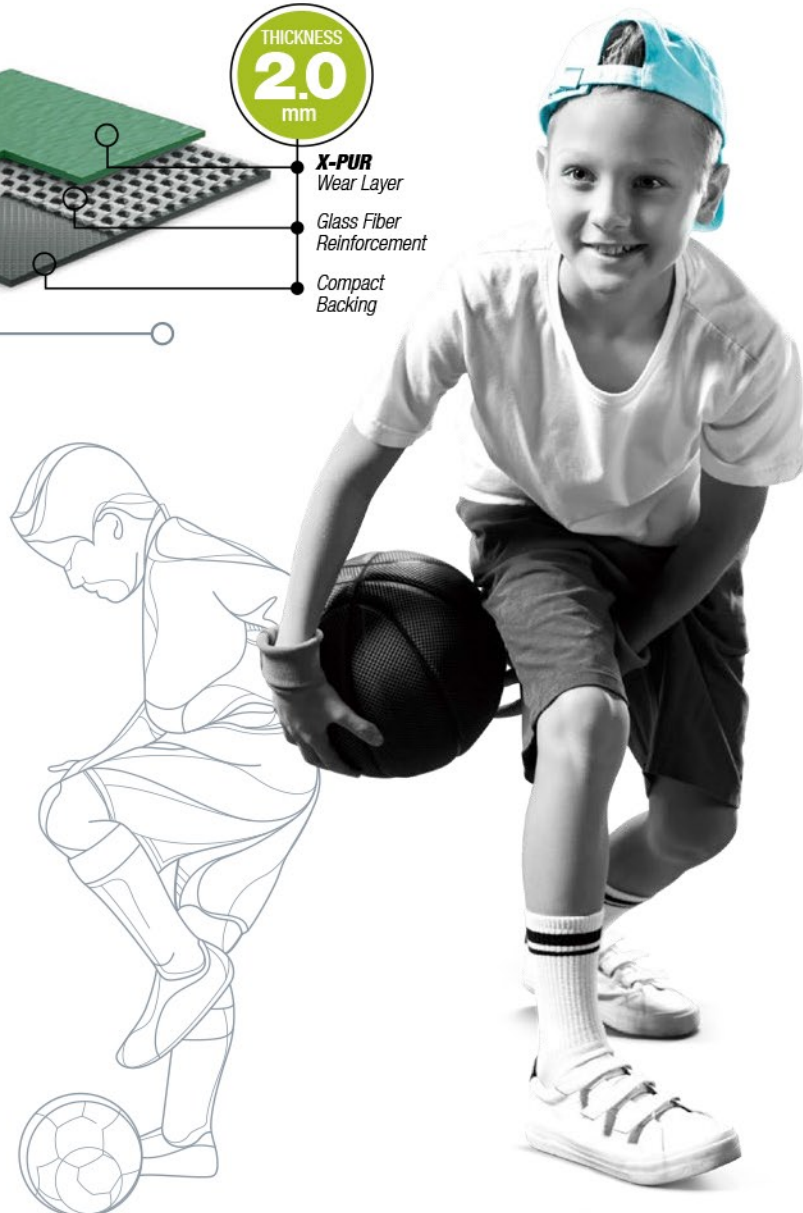


THICKNESS
2.0
mm

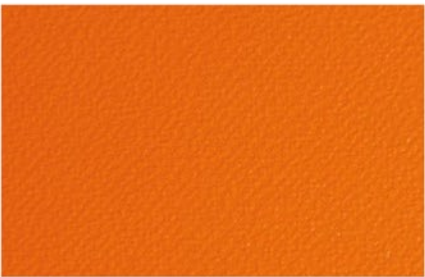
X-PUR
Wear Layer

Glass Fiber
Reinforcement

Compact
Backing



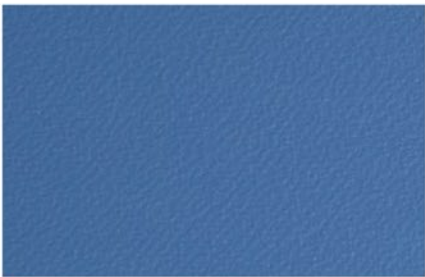
COLORS FOR **START**



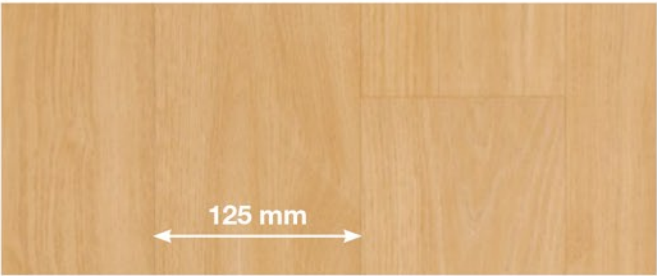
4000-665



4000-660



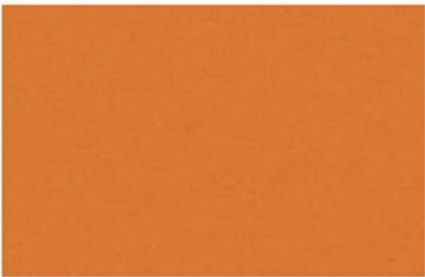
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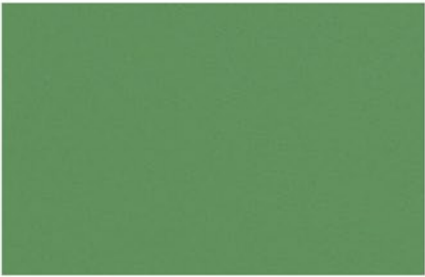
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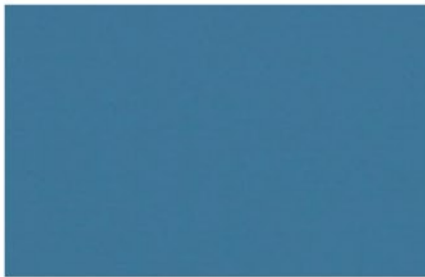
COLORS FOR **STAMINA**



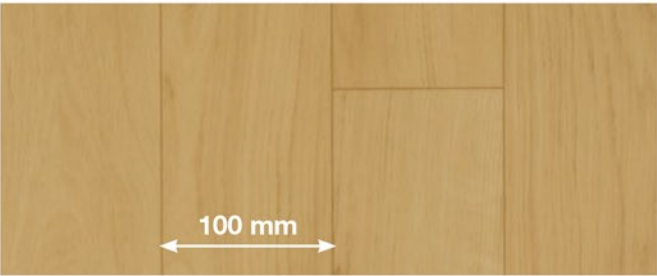
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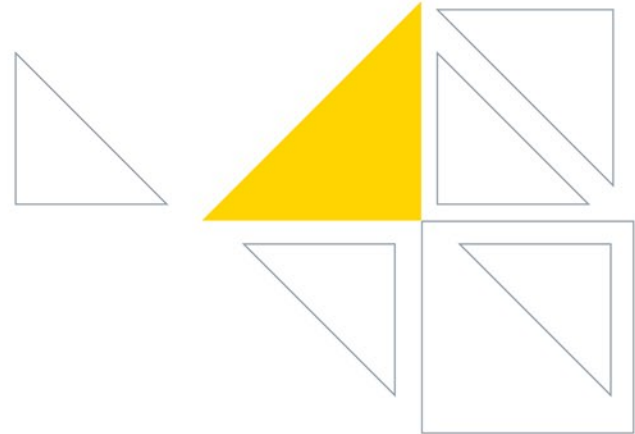
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6170-00-275



2519-371-275

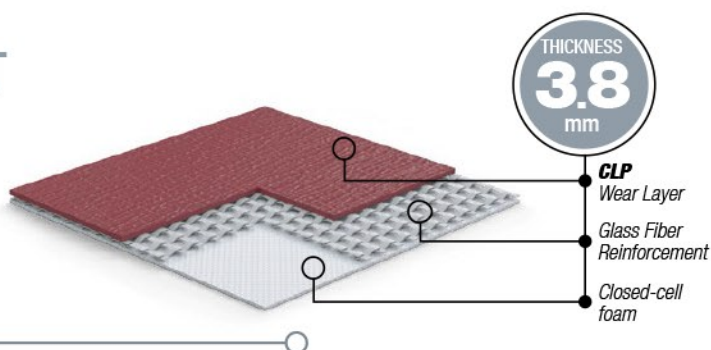




FOR BADMINTON AND TABLE TENNIS

- Light weight > Easy to roll in and out > **Suitable for temporary use**
- Optimal specular gloss
- Solvent and heavy metal free; low VOC > **Environmentally sound solution**
- Contains pre-consumer recycled materials
- 100 % recyclable

ROCKET



4387



7533





GRABOREX | damp proof membrane

Damp proof membrane for protection against moisture and for quicker installation.



GRABOREX T | 4250-991

GRABOREX | 1991-S-03/1

GRABOREX 40 | 1991-S-01/1

GRABOREX

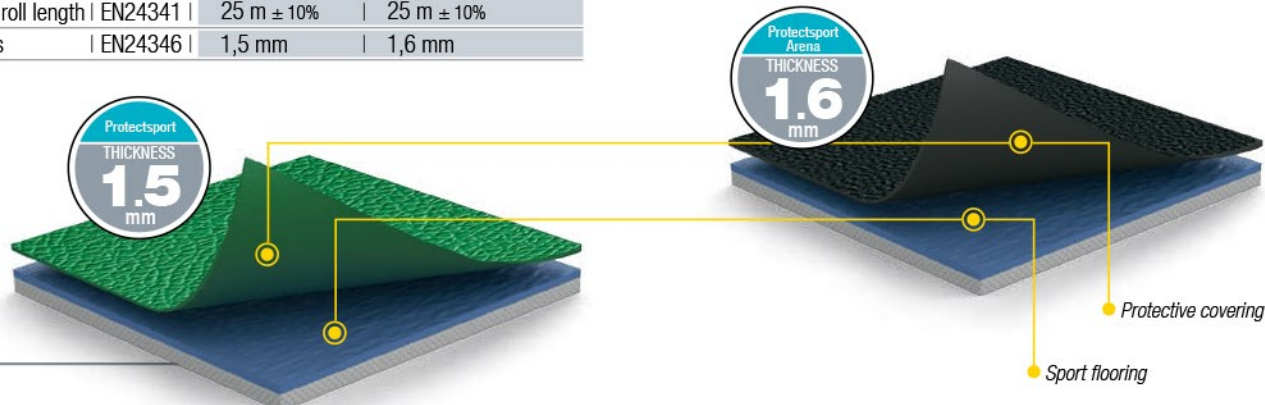
Technical data		Graborex T	Graborex	Graborex 40
Width	EN24341	2000 mm	1450 mm	1450 mm
Standard roll length	EN24341	35 m ± 10%	25 m ± 10%	25 m ± 10%
Thickness	EN24346	1,3 mm	1,4 mm	4,0 mm

PROTECTSPORT | protective covering

Protects the sport flooring during non-sportive events. Easy to roll up and down.

PROTECTSPORT

Technical data		Protectsport	Protectsport Arena
Width	EN24341	1400 mm	2000 mm
Standard roll length	EN24341	25 m ± 10%	25 m ± 10%
Thickness	EN24346	1,5 mm	1,6 mm



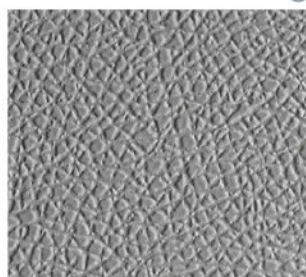
Protectsport



1784

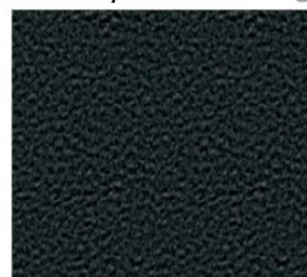


7522



1290

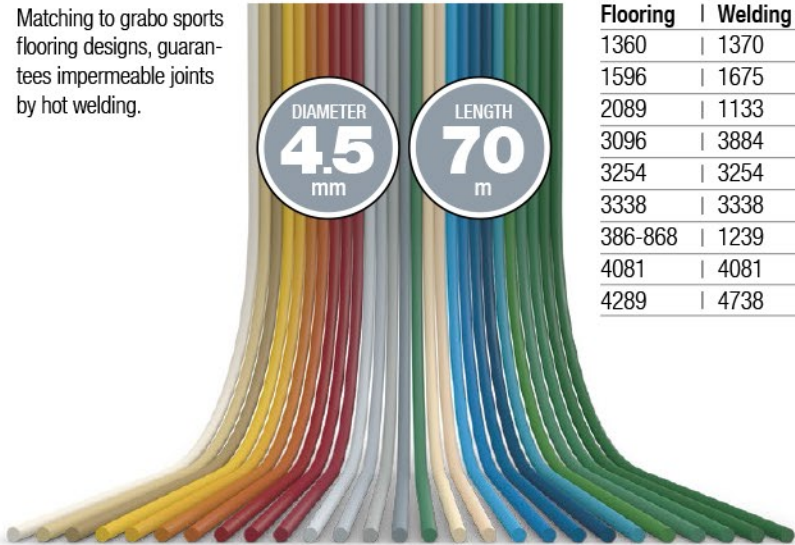
Protectsport Arena



1784-273

GRABOWELD | welding rod

Matching to grabo sports flooring designs, guarantees impermeable joints by hot welding.



Flooring	Welding rod
1360	1370
1596	1675
2089	1133
3096	3884
3254	3254
3338	3338
386-868	1239
4081	4081
4289	4738

Flooring	Welding rod
6115	6115
6170	6170
6470	6470
7143	7143
7483	7484
7539	7539
1171-371	1246
2000-378	2000
2209-371	2149
2519-371	2571
4000-626	1286

Flooring	Welding rod
4000-635	3553
4000-647	4725
4000-659	6346
4000-660	7507
4000-665	3573
4000-675	7533
4000-682	6115
4181-651	2243
4217-671	2233
4231-674	1794
4387	4738
7533	7533

GRABOCOLOR | paints for marking sports ground lines

Required quantity: 1l for 100 m long, 50 mm wide line.



Red



Blue



Yellow

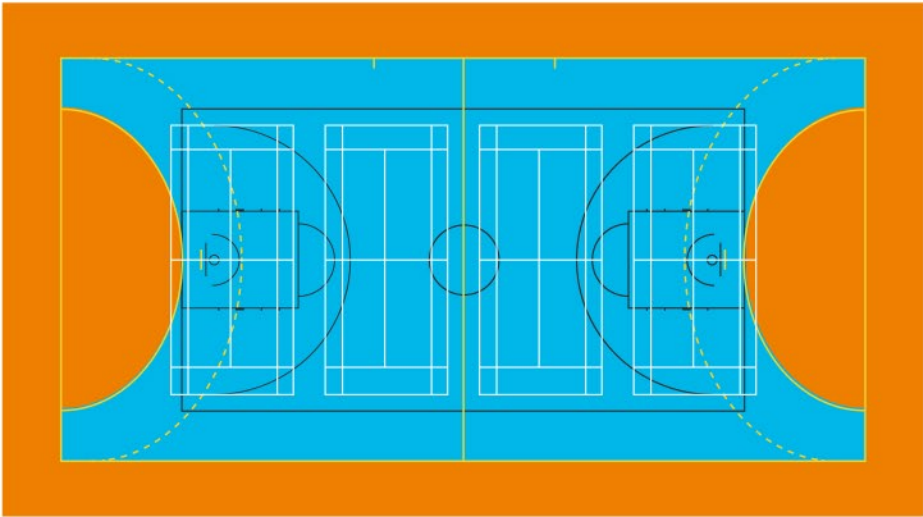


White



Black

RECOMMENDED COLORS		
Badminton		110 m
Basketball		210 m
Floorball		60 m
Handball		230 m
Indoor football		210 m
Indoor hockey		180 m
Netball		150 m
Tennis		150 m
Volleyball		80 m



SELF- VENTILATED SKIRTING

made of primed, varnished oak

Covers the expansion gap between sportsfloor and wall, ensures good ventilation of the flooring, provides a nice appearance for the sports hall.





			VARIUSE	MEGA	EXTREME
Thickness	mm	EN ISO 24346	6.2	10.3	8.0
Weight	kg/m ²	EN ISO 23997	4.2	5.2	4.25
Width	m	EN ISO 24341	2	2	2
Standard roll length	m	EN ISO 24341	20	15	15

CLASSIFICATION

Product specification			EN 14904	EN 14904	EN 14904
Impact sound insulation	ΔL_w (dB)	EN ISO 717-2	-	-	21
Thermal resistance	m ² K/W	EN426	0.05	0.09	0.07
Flammability		NF P 92-512	-	M3	M3
		EN 13501-1	C _{fl} -S1	C _{fl} -S1	C _{fl} -S1
		ÖNORM B3810/B3800/2	-	B1-Q1	B1-Q1
		ISO 3795	-	100	100

SPORT PROPERTIES

Rotational friction		EN13036-4	80-110	80-110	80-110
		Pr EN 14903	-	0.4-0.6	0.4-0.6
Shock absorption	%	EN 14808	≥25 (P1)	≥45 (P3)	≥35 (P2)
Vertical deformation	mm	EN 14809	0.8	2.0	1.9
Ball rebound	%	EN 12235	98	96	98
Specular gloss		EN 2813	≤ 30	≤ 30	≤ 30

TECHNICAL CHARACTERISTICS

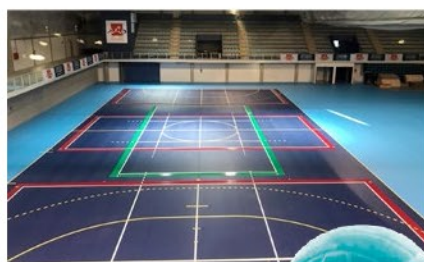
Dimensional stability	max. %	EN ISO 23999	+/-0.2	+/-0.2	+/-0.2
Indentation resistance	mm	EN 1516	<0.5	<0.5	<0.5
Resistance to rolling load	1500 N	EN 1569	no damage	no damage	no damage
Colour fastness		ISO 105 B02	6	6	6
Resistance to chemicals		EN ISO 26987	✓	✓	✓
Abrasion resistance (H18 wheel)	≤1000 mg/1000 cycles	EN ISO 5470-1	<250	<250	<250
Abrasion group		EN 660-1	T	T	T



SUPREME		ELITE		GYMFIT 65		GYMFIT 60		GYMFIT 50		START		STAMINA		ROCKET	
6.7		6.0		6.5		6.0		5.0		4.0		2.0		3.8	
3.6		3.25		3.6		3.5		2.9		2.7		2.8		2.5	
2		2		2		2		2		2		2		2	
20		20		20		15		20		20		20		16, 20	
EN 14904		EN 14904		EN 651		EN 651		EN 651		EN 651		EN 649		EN 651	
21		21		16		16		-		-		-		-	
0.06		0.05		0.05		0.05		0.045		0.03		0.01		0.03	
M3		M3		M3		M3		M3		-		-		-	
C _{IT} -S1		C _{IT} -S1		C _{IT} -S1		C _{IT} -S1		C _{IT} -S1		C _{IT} -S1		C _{IT} -S1		-	
B1-Q1		B1-Q1		B1-Q1		B1-Q1		B1-Q1		-		-		-	
100		100		100		100		100		100		100		100	
80-110		80-110		80-110		80-110		80-110		80-110		80-110		80-110	
0.4-0.6		0.4-0.6		-		-		-		-		0.4-0.6		-	
≥25 (P1)		≥25 (P1)		14		18		14		9		-		-	
1.3		1.0		0.33		0.33		0.33		0.4		-		0.33	
97		98		100		98		100		90		>90		90	
≤ 30		≤ 30		≤ 30		≤ 30		≤ 30		≤ 30		≤ 30		≤ 30	
+/-0.2		+/-0.2		+/-0.2		+/-0.2		+/-0.2		+/-0.2		+/-0.2		+/-0.2	
<0.5		<0.5		<0.5		<0.23		<0.5		-		<0.23		-	
no damage		no damage		no damage		no damage		no damage		no damage		no damage		no damage	
6		6		6		6		6		6		6		6	
✓		✓		✓		✓		✓		✓		✓		✓	
<250		<250		<250		<250		<250		<250		<250		<250	
T		T		T		T		T		T		T		T	



REFERENCES



- A > ALGERIA**
- Military post's gym – Algir
- B > BELORUSSIA**
- Sportarena – Minsk
- > BRASILIA**
- City Sports Hall – Florianapolis

- C > CHINA**
- University Sportshall Nanjing
 - Victoria Shanghai Academy
 - Jiling Laboratory High School – Chanchun

- > CZECH REPUBLIC**
- Table tennis hall – Dubnary
 - Veterinary university – Brno

- F > FINLAND**
- City Sports Hall – Hämeenlinna
 - Sports hall – Lappeenranta

- > FRANCE**
- Sports Hall – Lys le Lannoye
 - Sports Hall – Villejuif
 - Sports Hall – Sucy en Brie

- G > GERMANY**
- Iserlohn-Albert Schweitzer School
 - Fitness club – Pösneck

- > GREEK**
- Aristotelio University's gym – Thessaloniki
 - Gym of Gymnastic Association – Deskatis

- H > HUNGARY**
- Krúdy Grammair School – Győr
 - Széchenyi University Sportshall – Győr
 - City Sports Hall – Putnok
 - City sports hall – Dunakiliti
 - Grammar-school – Szentendre
 - Elementary school – Mezőkocsnya
 - Erzsébet v. Elementary school – Budapest
 - Elementary school – Szűgy
 - City Sports Hall- Balassagyarmat
 - Elementary school – Sándorfalva
 - Elementary school – Békéscsaba,
 - Calvinistic Grammair School – Szentendre
 - City Sports Hall – Gyomaendrőd

- I > INDONESIA**
- Sportshall, Nganjuk Municipality – East Java
 - People's Park Sport Arena – Palembang, Sumatra





> ITALY

- Municipal gym – Marano
- Police gymnasium – Tarvisio
- Palestra instituto Don Bosco
- Monte San Pietro Sportshall

L

> LITVANIA

- Turgeliu középisk – Salchininka

P

> POLAND

- Marcinowice Sportshall
- Sports courts – Jawornik
- City Sports Hal – Elblag

R

> ROMANIA

- Industrial secondary school – Oradea

> RUSSIA

- Multifunkcional sport halls – Moscow
- FK Saturn Sports Hall – Jegorevskz
- City Sports Hall – Novosibirsk
- Sportshall – Kaliningrad
- Chaikovski Zavialovo Sportshall
- Sports Complex, Moscow region Kolomna
- ULGU Ulianovsk Sportshall
- Multipurpose Sports Complex, Dimitrovgrad
- Moscow MGLU sportshall

S

> SLOVAKIA

- Hungarian Language School – N. Zámky

> SOUTH AMERICA

- Concepcion Secondary Grammair School – Chile
- Colegio Baquedano, Coyhaique – Chile
- Club Deportivo Bonadila – Mexico

> SPAIN

- Torre del Camo Sports Hall – Cordoba
- Encinarejos Sport Hall – Cordoba
- De Marinalede City Sports Hall – Sevilla
- Sportshall – La Coruna

> SWEDEN

- Bilder Golv School

U

> UAE

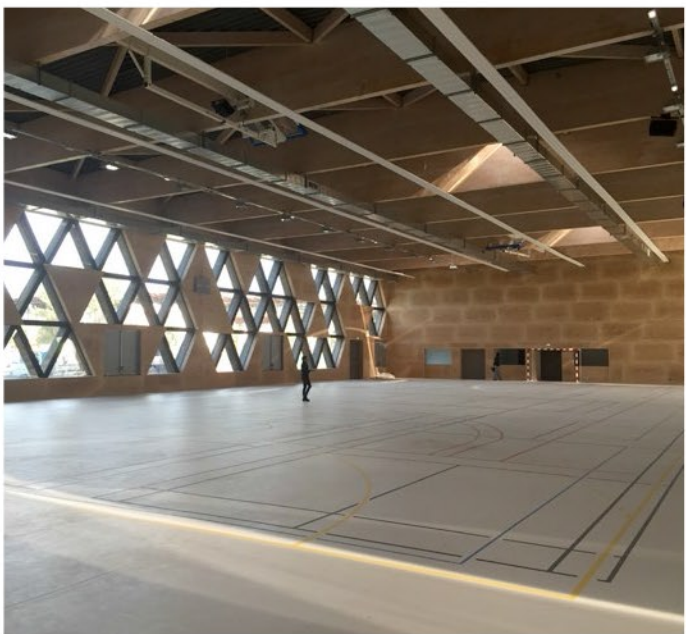
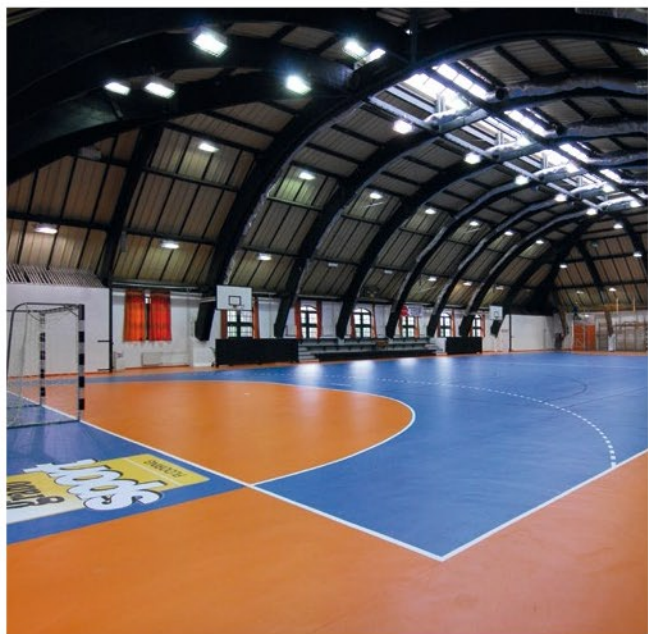
- Golf club – Dubai
- Private gymnasium – Dubai
- Al Murooj Res Complex Gym – Dubai

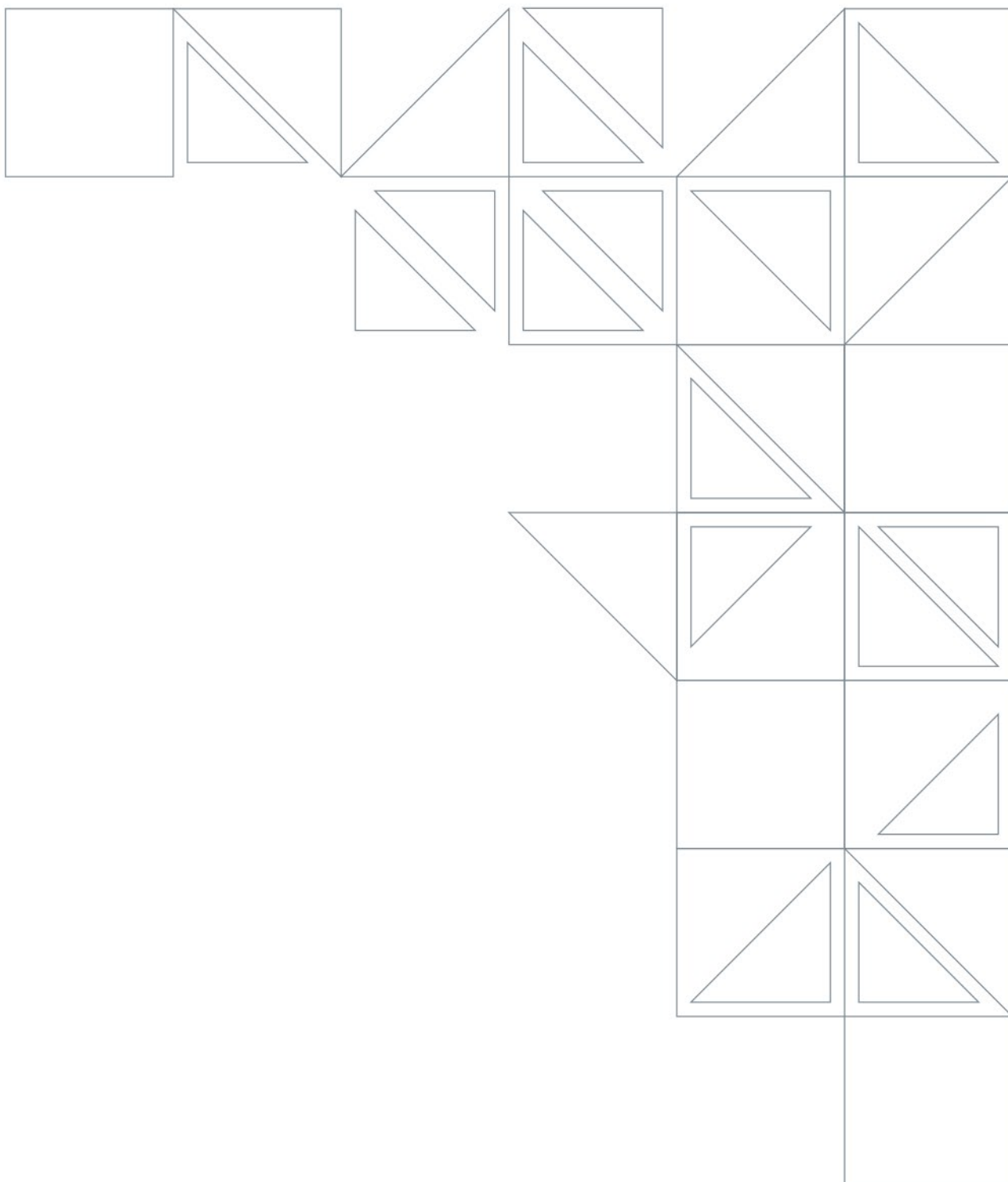
> UNITED KINGDOM

- Wellesbourne school – Wellesbourne
- Burry Grammair School

> USA

- Leisure Fitness Bethesda
- Albermarle Road Recreation Center
- Atlanta Falcons Sport Center
- Bristol Community College
- Burlington High School
- Fairfax County Cherry Run School
- Marriott Mayflower Rainessance Fitness Center
- My Gym School-Boston
- Philadelphia Sports Club
- Sheraton Fitness Hall – Baltimore
- Sheraton New York Hotel&Tower Sport Center
- Tuckaseegee Recreation Center
- Development Center – Colombus
- Cleveland Boys and Girls Club
- Daimler-Chrysler Training Center – Alabama
- The Waldorf school – Lexington





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