



SURFORMA®

Shaping Spaces

CompactShield



interzum



AWARD

High Product Quality

2023

BALLISTIC PROTECTION

CompactShield Ballistic Decorative Compact

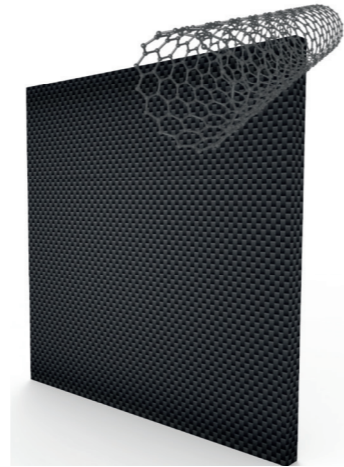


Decorative solutions for Preserving life.

A growing consciousness of the threat associated with armed conflicts, terrorist acts and wars led Surforma to develop and introduce solutions for life protection to its portfolio.

Surforma with its partner, Beyond Composite, have developed ballistic decorative compacts using composite materials based on nanotechnology advanced fibrous materials and high energy absorption structures. Together it results on a lightweight and thin compact for ballistic protection.

SURFORMA® CompactShield materials were tested under the U.S. National Institute of Justice's Standard for Ballistic Resistant Protective Materials, standard NIJ 0108.01 stopping different calibers shots depending on the protection level aimed, without piercing the material and the ammunition remains locked inside. The validation tests were done by a certified independent ballistic laboratory.



NIJ 0108.01	LOW CALIBER HANDGUN		MEDIUM CALIBER HANDGUN		RIFLES	
	I	II-A	II	III-A	III	IV
Level						
Gun						
Bullet	 22 LRHV 38 Special	 357 Magnum 9 mm	 357 Magnum 9 mm	 44 Magnum 9 mm	 7.62 mm 308 Winchester	 30-06 AP
Velocity (m/s) by type of bullet	320 259	381 332	425 358	426 426	838	838

In Europe, other classifications can be found using standards such as EN 1063 (2000), which is a security glazing standard created by the European Committee for measuring the protective strength of bullet-resistant glass. It is commonly used in conjunction with EN 1522 (Euro norm standard for Bullet Resistance in Windows, Doors, Shutters and Blinds) to form a ballistic classification system by which armored vehicles and structures are tested and rated. However, it is a similar classification system as for NIJ 0108.01, which includes glass and armor plate.

BS EN 1063	LOW CALIBER		MEDIUM CALIBER HANDGUN		RIFLES		SHOT GUN
Level	BR1	BR2	BR3	BR4	BR5	BR6/BR7	SG1/SG2
Gun							
Bullet	 22 LRHV	 9 mm Luger	 357 Magnum	 44 Magnum	 5.56 mm	 7.62 mm	 12/70
Velocity (m/s)	360	400	430	440	950	830/820	420

For military application, the standard used is NATO STANAG 4569.

STANAG 4569	LOW CALIBER	MEDIUM CALIBER		HEAVY CALIBER	
Level	I	II	III	IV	V
Gun	 Rifle	 Infantry Rifle	 Sniper Rifle	 Heavy Machine Gun	 Automatic Cannon
Bullet	 7.62 x 51 NATO Ball 5.56 x 45 NATO SS109 5.56 x 45 M193	 7.62 x 39 API BZ	 7.62 51 (WC core) 7.62 x 54R B32 API	 14.5 x 114AP / B32	 25 mm APDS-TM-791
Velocity (m/s) by type of bullet	833 900 937	695	854 930	911	1258

For comparison purposes, level IIIA of NIJ 0108.01 is equivalent to level BR4 of BS EN 1063.

Level III of NIJ 0108.01 is analogous to level BR6/BR7 of BS EN 1063 and to level 1 of STANAG 4569.

CompactShield is available in several configurations, considering its weight, thickness and level of NIJ 0108.01:

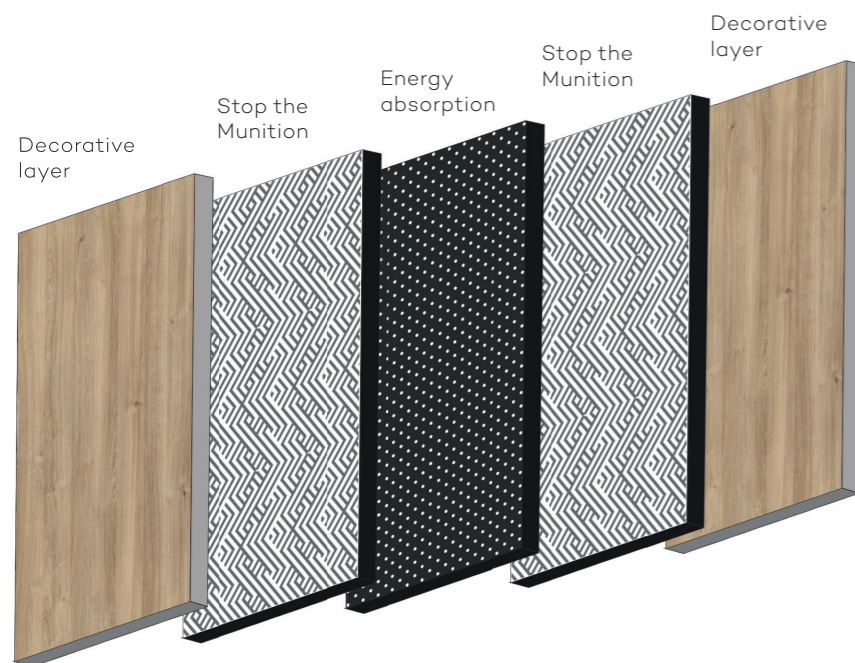
COMPACTSHIELD	WEIGHT (KG/M2)	THICKNESS (MM)	SIZES (MM)
IIIA Soft	26	13	2150 X 1240 ; 2500 X 1240 ; 3000 X 1240
IIIA	21	11	2150 X 1240 ; 2500 X 1240 ; 3000 X 1240
IIIA Plus	6.5	6.5	3600 X 1500
III	20	20	3600 X 1500

CompactShield by Surforma® is ideally suited for public either residential spaces in a variety of applications including doors, wall cladding and interior fittings and partitions, for the sectors of government and military buildings, banks, education, hospitals and healthcare, hotels and restaurants, offices, shops.

CompactShield is also particularly interesting for transportation industry such as trains, buses or airplanes because of the lightweight and reduced thickness characteristics.

Surforma offers a wide range of decorative variations of CompactShield with the ultimate goal of satisfying the requirements from interior designers and architects.

The product can also be provided without any decorative surface for inclusion inside a wall or door structure.



CompactShield is conceived to be a customized solution that is evaluated and designed to fulfill the need of the client in terms of level of protection, weight, thickness and other characteristics, alone or in combination with other materials such as armored steel or ceramics.

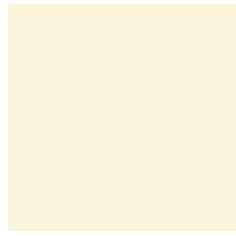
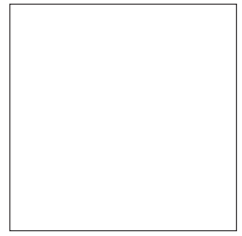
Surforma® was honored with three Interzum High Product Quality Award 2023.

This award as part of a competition it is given to companies exhibiting at the Interzum and granted by an International expert jury for outstanding achievements, which set new standards in line of business.

The award which combines innovative aspects of material, function, and design, in an exemplary fashion went to:

NATUR Laminates & Compacts
CompactShield
Warmed HPL - Upcoming product





Unique White
B4401

Light Grey
L166

Dark Grey
L167

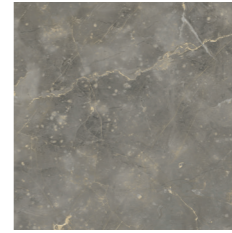
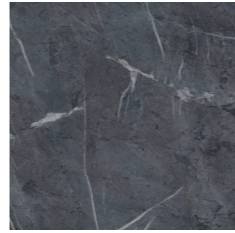
White Antique
L174

Jade
L212

Guava
L5237

Daylight
L6084

Storm Grey
L6274



Basalt
L927

Avocado
L969

Black
L3031

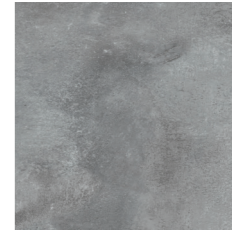
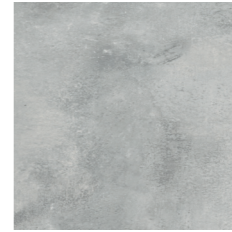
Medium Grey
L4068

Yin Marble
F2272

Yang Marble
F2273

Palazio Gold
F2278

Palazio Silver
F2279



Mint
L4085

Cotton
L5200

Frozen Blue
L5203

Bambus
L5206

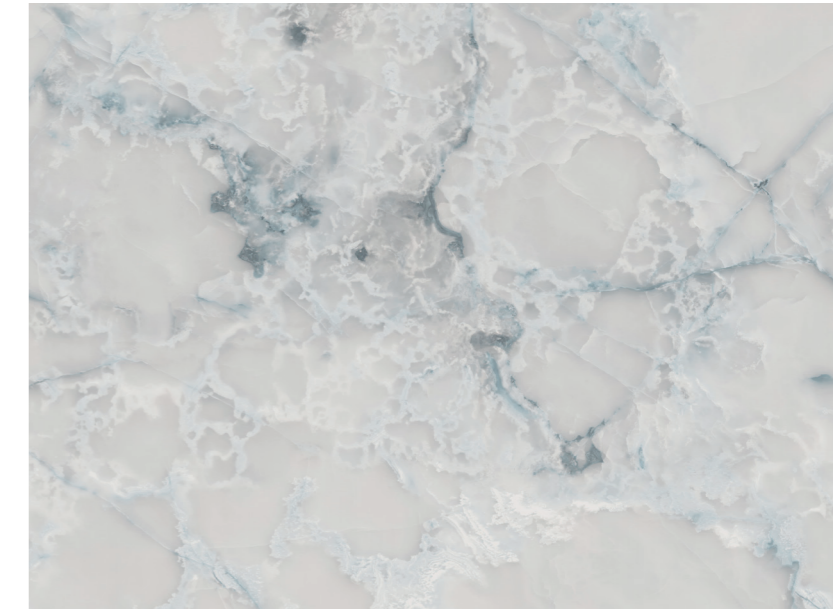
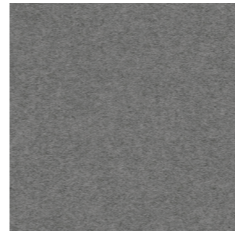
Camouflage
L5207

UrbanStone Graphite
F2282

Artwall Grey
F2300

Artwall Anthracite
F2301

Artwall
F2302



Opal
L5209

Hot Pepper
L5219

Mango
L5223

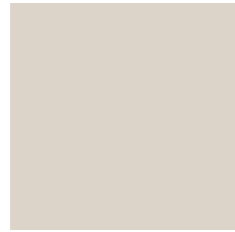
Almost Blue
L5225

Azurite
L5230

Feel Light Grey
F2313

UrbanStone Chalk
F2280

Onyx Nacre
F2317



Paprika
L5232

Nude
L5233

Hindu
L5234

Deer
L5236

Titanium Dark
F2305 (V)

Metallic
F4004



Iguazu Oak M999 **Troia Walnut** M2511 **Sonoma Oak Natur** M6120 **Lorca Oak** M4289 **Whitewood** M3866



Bari Oak Grey M6251 **Bari Oak Nature** M6252 **Cosmopolitan #1** M6282 **Mapuche Beige** M6289 **Mapuche Grey** M6290



Smart Ash Light M6305 **Smart Ash** M6306 **Smart Ash Dark** M6307 **Ethnic Fire** M6300 **Amundsen Oak** M9275



Karlstad Oak Pale M6323 **Artisan** M6322 **Karlstad Oak Grey** M6344



Medieval Oak M6345 **Aura Maple** M6348

CompactShield Offer

				COMPACTSHIELD		
				IIIA SOFT ; IIIA		IIIA PLUS ; III
				2150 X 1240 ; 2500 X 1240	3000 X 1240	3600 X 1500
FAMILY	REFERENCE	DECOR NAME	LRV (LIGH REFLECTANCE VALUES)	DEPENDING ON PROTECTION LEVEL		
WHITE	B4401	UNIQUE WHITE	87,0	LP	LP	LP
GREY	L166	LIGHT GREY	54,8	LP	SC	LP
GREY	L167	DARK GREY	12,2	LP	SC	LP
BEIGE	L174	WHITE ANTIQUE	84,1	LP	SC	LP
PLAIN - PASTEL BLUE-GREEN	L212	JADE	39,4	LP	LP ; SC	LP
PLAIN - TAUPE	L927	BASALT	26,0	LP	SMA	LP
PLAIN - GREEN	L969	AVOCATO	14,0	LP	LP ; SC	LP
PLAIN - BLACK	L3031	BLACK	6,1	LP	SC	LP
GREY	L4068	MEDIUM GREY	35,5	LP	SC	LP
PLAIN - PASTEL BLUE-GREEN	L4085	MINT	55,4	LP	LP ; SC	LP
PLAIN - TAUPE	L5200	COTTON	56,3	LP	SMA	LP
BLUE	L5203	FROZEN BLUE	46,9	LP	SMA	LP
PLAIN - PASTEL GREEN	L5206	BAMBUS	32,0	LP	SMA	LP
PLAIN - PASTEL GREEN	L5207	CAMOUFLAGE	19,1	LP	SMA	LP
PLAIN - PASTEL BLUE-GREEN	L5209	OPAL	13,7	LP	LP ; SC	LP
PLAIN - RED	L5219	HOT PEPPER	10,6	LP	LP ; SC	LP
PLAIN - YELLOW	L5223	MANGO	83,3	LP	SMA	LP
PLAIN - BLUE	L5225	ALMOST BLUE	72,4	LP	SMA	LP
BLUE	L5230	AZURITE	7,7	LP	LP ; SC	LP
PLAIN - ORANGE	L5232	PAPRIKA	16,8	LP	LP ; SC	LP
PLAIN - BIGE	L5233	NUDE	64,6	LP	SMA	LP
PLAIN - RED	L5234	HINDU	13,1	LP	LP ; SC	LP
YELLOW	L5236	DEER	32,0	LP	SMA	LP
PINK	L5237	GUAVA	36,0	LP	SMA	LP
PLAIN - GREY BEIGE	L6084	DAYLIGHT	56,6	LP	LP ; SC	LP
PLAIN - BLUE	L6274	STORM GREY	17,6	LP	SMA	LP

				COMPACTSHIELD		
				IIIA SOFT ; IIIA		IIIA PLUS ; III
				2150 X 1240 ; 2500 X 1240	3000 X 1240	3600 X 1500
FAMILY	REFERENCE	DECOR NAME	LRV (LIGH REFLECTANCE VALUES)	DEPENDING ON PROTECTION LEVEL		
CEENT	F2272	YIN MARBLE	22,0	LP	STU	LP
STONE	F2273	YANG MARBLE	61,0	LP	STU	LP
CEMENT	F2278	PALAZIO GOLD	22,9	LP	CMS	LP
STONE	F2279	PALAZIO SILVER	40,5	LP	CMS	LP
STONE	F2280	URBANSTONE CHALK	64,9	LP	CMS	LP
CEMENT	F2282	URBANSTONE GRAPHITE	12,4	LP	CMS	LP
CEMENT	F2300	ARTWALL GREY	48,4	LP	STU	LP
CEMENT	F2301	ARTWALL ANTHRACITE	25,9	LP	STU	LP
CEMENT	F2302	ARTWALL	53,1	LP	STU	LP
METALLIC	F2305 (V)	TITANIUM DARK	22,0	LP	SC	LP
FANTASIES	F2313	FEEL LIGHT GREY	29,0	LP	CMS	LP
MARBLE	F2317	ONYX NACRE	55,0	LP	SMA	LP
METALLIC	F4004	METALLIC	47,8	LP	SC	LP
OAK	M999	IGUAZU OAK	55,2	LP	FLW	LP
WALLNUT	M2511	TROIA WALNUT	13,6	LP	SMA	LP
ASH	M3866	WHITEWOOD	75,7	LP	NTL	LP
OAK	M4289	LORCA OAK	48,3	LP	SMA	LP
OAK	M6120	SONOMA OAK NATUR	27,0	LP	NTL	LP
OAK	M6251	BARI OAK GREY	49,4	LP	FLW	LP
OAK	M6252	BARI OAK NATURE	39,9	LP	FLW	LP
OAK	M6282	COSMOPOLITAN #1	38,4	LP	FLW	LP
ELM	M6289	MAPUCHE BEIGE	52,2	LP	FLW	LP
ELM	M6290	MAPUCHE GREY	57,6	LP	FLW	LP
EXOTIC	M6300	ETHNIC FIRE	19,4	LP	FLW	LP
ASH	M6305	SMART ASH LIGHT	43,9	LP	FLW	LP
ASH	M6306	SMART ASH	28,4	LP	FLW	LP

				COMPACTSHIELD		
				IIIA SOFT ; IIIA		IIIA PLUS ; III
				2150 X 1240 ; 2500 X 1240	3000 X 1240	3600 X 1500
FAMILY	REFERENCE	DECOR NAME	LRV (LIGH REFLECTANCE VALUES)	DEPENDING ON PROTECTION LEVEL		
ASH	M6307	SMART ASH DARK	15,5	LP	FLW	LP
OAK	M6322	ARTISAN	30,0	LP	FLW	LP
OAK	M6323	KARLSTAD OAK PALE	39,0	LP	FLW	LP
OAK	M6344	KARLSTAD OAK GREY	25,0	LP	FLW	LP
OAK	M6345	MEDIEVAL OAK	39,0	LP	FLW	LP
MAPLE	M6348	AURA MAPLE	63,0	LP	FLW	LP
OAK	M9275	AMUNDSEN OAK	56,6	LP	NTL	LP

Other variants of size, thickness, references and finishes are subject to prior inquiry

Disclaimer

This document has been produced using the best printing techniques. However, images may not be a true representation of the actual color. Before making a decision, you can order your favorite samples free of charge via our website.

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