



PRODUCT DATA SHEET

modern line 

INDOOR
AND OUTDOOR
FURNITURE

PRODUCT DATASHEET: INDOOR AND OUTDOOR FURNITURE

1. INTRODUCTION:

The Modern Line concrete products are characterized by a modern style range and a vanguard in thinking about spatial arrangement. Utilizing 20 years of experience, we have created a series of concrete products that have been adapted to modern arrangements. Quality, technology and powerful minimalist design in the Scandinavian style - these are our priorities and challenges in terms of modern design. Modern Line is a solution for both public arcades, parking lots and courtyards, as well as private terraces and gardens.

2. MODERN LINE PRODUCTS OF ARCHITECTURAL CONCRETE - CHARACTERISTIC FEATURES:

2.1 Composition and technology: The use of specialized aggregate, selected concrete, alkali-resistant glass fibers and the most modern chemical admixtures allows one to make products with a high complexity, including thin-walled, without the necessity to use additional traditional reinforcement.

2.2 100% handmade: products made of architectural concrete are made entirely in manual casting technology.

2.3. Satin texture: architectural concrete in natural Modern Line version differs from other with a smooth and satin to the touch texture.

2.4. Slim: Specially designed GRC (GFRC) constitution of selected components makes it possible to minimize a thickness of component's walls and at the same time achieve much more spectacular design while maintaining perfect strength parameters.

3. MODERN LINE ARCHITECTURAL CONCRETE - PHYSICAL PROPERTIES:

3.1. Absorbability – $Nw < 6\%$ - compliant with standard PNEN-13198.

3.2. Water tightness - High water tightness (low absorbability) of GRC concrete allows one to store it in a wet environment without affecting the assumed technical and usable properties

3.3. Dimensional deviations – dimension - ± 15 mm - size differences of the product compliant with standard PN-EN13198

3.4. Dimensional deviations – wall thickness - differences of product's walls thickness can amount to ± 5 mm.

3.5. Compressive resistance – C 30/37 – in compliance with standard PN-EN 12390-3.

3.6. Colors, texture and properties:

Concrete is a material the beauty of which is its rigidity, imperfection and uniqueness. Uniqueness of the material is determined by its nature - demanding and rough. **You should consider the purchase of another material, if you expect a predictable and repeatable material.**

On the surface of products made of architectural concrete, streaks, color wear and pores/pitting (the so-called honeycombs) of a various number, regularity and intensity may occur. Between the individual elements, various differences in shadow may occur, and glass fibers and differences in the structure of aggregates used in production of concrete may reflect on their surface – the listed features are a natural feature of concrete, not its flaw, they give a unique appearance to the products and are not subject to complaint. Over time, the elements become even in terms of color and slightly tarnish, while the differences in shades, streaks and wears become barely visible after approximately six months (they do not disappear completely). Surface of elements made of architectural concrete may change in terms of color tones and geometry due to the influence of surrounding conditions (humidity, temperature, sunlight). On the surface of elements – also the impregnated ones - under the influence of humidity an efflorescence may occur - it is a natural feature of each concrete and disappears automatically after a longer time. Due to the properties of natural raw materials used in production of architectural concrete (own color of a concrete, aggregates) it is recommended to order all elements planned to be used and possible spare elements because it eliminates the possibility of occurrence of significant changes in their shades. Any concrete processing and additional activities, such as polishing, grinding, applying varnishes, waxes, impregnates may have an impact on change of color and the nature of the concrete surface.

NOTE: Products made of architectural concrete are characterized by low absorbability (high water tightness), however, in the contact with water and other liquids they may absorb water, leading to a temporary or permanent change in color and geometry.

Texture characteristic of furniture and small architecture:

natural: smooth in touch texture with moderate number of irregular pores (honeycombs)

NOTE: Due to the specific character of architectural concrete, the color and porosity of the product may vary in shade from the color of concrete samplers available as a marketing material.

3.7. Frost resistance - High water tightness (low absorbability) of GRC concrete makes it resistant to adverse winter atmospheric conditions, which eliminates the necessity to secure it for winter season.

3.8. Durability - GRC concrete does not deform as a result of influence of atmospheric conditions, ensuring high durability of products.

4. PRODUCT DATA SHEET – TECHNICAL DETAILS

PRODUCT NAME	DIMENSIONS (CM)	WEIGHT (KG)	MAX LOAD (KG)	WALL THICKNESS (CM)	CONCRETE COLORS	OTHER MATERIALS /COLORS	USE	CONCRETE SURFACE
table GRAVITY	lenght 140 height 75 width 70	95	30	3	white concrete steel carbon	wood*	indoor/ outdoor	natural
chair GRAVITY	lenght 40 height 83 width 52	35	115	3	white concrete steel carbon	wood*	indoor/ outdoor	natural
table FOCUS	lenght 100 height 37 width 60	75	20	2	white concrete steel carbon	felt*	indoor	natural
stool FOCUS	lenght 52 width 40 height 37	35	180	2	white concrete steel carbon	felt*	indoor	natural
bench SLIM	lenght 119 width 39 height 45	55	350	2-4	white concrete steel carbon		indoor/ outdoor	natural
bench HARMONY	lenght 79 lenght 119 lenght 159 lenght 159 with wood width 39 height 45	105 140 170 120	180 350 550 350	8	white concrete steel carbon	wood*	indoor/ outdoor	natural
bench-planter HARMONY	lenght 119 lenght 159 lenght 159 with wood width 39 height 45 capacity 48 l	150 180 115	180 350 350	2-8	white concrete steel carbon	wood*	indoor/ outdoor	natural
bench TRIO	lenght 185 width 275 height 45	1300		4-11	white concrete steel carbon	white beige yellow gray black	outdoor	natural/ polished
stool with basket HARMONY	lenght 45 width 45 height 84	115	180	5	white concrete steel carbon		indoor/ outdoor	natural
stool HARMONY	lenght 45 width 45 height 45	75	180	5	white concrete steel carbon		indoor/ outdoor	natural
box REGULAR	lenght. 39 lenght 79 lenght 119 width 39 height 45	95 140 200	180 350 550	4-5	white concrete steel carbon		indoor/ outdoor	natural
chaise lounge HARMONY	lenght 180 width 65 height 64	300	250	8-10	white concrete steel carbon		indoor/ outdoor	natural

*type of wood and felt available on request

PRODUCT NAME	DIMENSIONS (CM)	WEIGHT (KG)	MAX LOAD (KG)	WALL THICKNESS (CM)	CONCRETE COLORS	OTHER MATERIALS /COLORS	USE	CONCRETE SURFACE
table CREATIV	length 200 height 75 width 100	150	30	2	white concrete steel carbon	powder-coated steel	indoor/ outdoor	natural
coffee table CREATIV	length 80 height 42 width 80	60	10	2	white concrete steel carbon	powder-coated steel	indoor/ outdoor	natural
stool REGULAR	length 45 height 45 width 45	56	180	2-4	white concrete steel carbon		indoor/ outdoor	natural
bench SLIM REGULAR	length 119 width 39 height 45	58	350	2-4	white concrete steel carbon		indoor/ outdoor	natural
bench REGULAR	length 79 length 119 length 159 width 39 height 45	115 150 180	180 350 550	8	white concrete steel carbon	white beige yellow gray black	indoor/ outdoor	natural
bench- planter HARMONY	length 119 length 159 width 39 height 45 capacity 48 l	175 180	180 350	2-8	white concrete steel carbon		indoor/ outdoor	natural

5. USE:

Architectural concrete is not resistant to scratches and impact, in particular with sharp objects. Products made of architectural concrete cannot be overloaded above the given maximum point and even load or jump on it. Elements should always be placed on even surface.

5.1 Use in winter – Products made of architectural concrete are resistant to atmospheric conditions, including temperatures below zero, which allows one to use them on the outside throughout the year without the need of securing. Do not use de-icing agents and sharp tools for removing snow and ice from the architectural concrete..

6. CLEANING AND MAINTENANCE:

Products made of architectural concrete, especially those with wooden and felt elements, should be protected against dirt. Any dirt should be removed on a regular basis, as leaving it can cause stains and discoloration. Do not use agents on the basis of acids and strong alkalis, aggressive cleaning agents or chemicals, which may react with concrete or impregnate, abrasives with abrasive properties (powders, creams) for cleaning of the concrete. Recommended cleaning: wet cloth and soft detergent.

7. IMPREGNATION:

Products of Modern Line architectural concrete are secured with author's Anti-graffiti Protection system protecting the surface of furniture against permanent adherence of paints and oils. Impregnation does not protect against stains caused by stagnant liquids, oils, acids, strong alkalia..

8. PACKAGING:












Modern Line products are secured with diffusion membrane, and then placed in box pallets, to the base of which they are permanently and lastingly attached with the use of fastening tape. Products are secured in a manner preventing damaging by tapes. Box pallet is protected with a heat-shrink film on the outside.

9. TRANSPORT AND ACCEPTANCE:

The Modern Line products packed on box pallets with various sizes can be transported by cars. Extreme caution should be exercised during transport of the box pallets. Box pallets should be placed on even surface, they cannot be overturned, thrown, piled, it is unacceptable to place other loads on a box pallet. It is recommended to transport and unload pallets one at a time - so as not to damage the surface. Unloading and transport at the target place should be performed using forklifts or lifting strings. The fork and lifting strings spacing should be

adapted to the size of the pallet. Move carefully. Unpacked products should be moved using lifting strings attached in two points to the product (according to the table below). After delivery of products to the target location, a quantitative acceptance should be immediately performed, and after removal of a film and unpacking - a qualitative acceptance of products. The client should immediately report any irregularities to the manufacturer.

Note: In case of delivery of products by general cargo transport/carrier company, the responsibility of the client is to check the condition of the content of delivery. In case of any damages, one should prepare a protocol in the presence of a driver/courier. This is a condition for submitting a complaint.

	bench TRIO	bench SLIM	bench HARMONY REGULAR	bench/planter HARMONY REGULAR	stool with backseat HARMONY	stool HARMONY REGULAR	box REGULAR	chaise loungue HARMONY
A method of moving the products on lifting strings								
	Double-point lifting strings attached on transport hooks	double-point lifting strings laid over the product						
Diameter of transport hooks								
Safety precautions: do not tip over do not throw	 							





10.STORAGE AND WAREHOUSING:

Pallets should be stored only on a flat surface, do not pile. Immediately after delivery of products to the target location, one should enable the free access of the air to products to avoid retention of humidity on them. Do not permit a direct contact of a face surface with expanded polystyrene/extruded polystyrene/film and other materials impermeable to humidity. Secure against the risk of dirt, scratching and being hit by hard, heavy or sharp objects. The packaging does not secure the products in 100% against the impact of atmospheric conditions, therefore the products made of architectural concrete should not be stored outside in the packaging.

Improper storage of elements can cause occurrence of discolorations, efflorescences – these are not flaws of the product but they affect its aesthetic.

11.ASSEMBLY:

Products such as: Bench Harmonyand Regular,Bench-Planter Harmony and Regular, Harmony Chaise Longue have incorporated assembly dowels for attachment of the products to the base. Such optional method of assembly protects products against the possibility of their displacement.

	BENCH HARMONY REGULAR	BENCH-PLANTER HARMONY REGULAR	CHAISE LOUNGE HARMONY
Assembly dowels: location and diameter	<div> location</div>	<div> diameter</div>	<div> location</div> <div> diameter</div>

The method of assembly using assembly dowels

To attach products to the base with the use of assembly dowels, one should attach anchors in assembly dowels properly prepared in products, place products with attached anchors on the previously prepared base, and then cover the anchors with cement screed. Anchors do not come with the products

12.INTENDED USE:

Furniture made of architectural concrete can be used both outside and inside the rooms.

12.1. Outdoor use:

12.1.1. Outside the rooms, one can use Modern Line products made only of architectural concrete and made of concrete and proper wood (according to item 4 "Product data sheet").

12.1.2. Preparation of the base:

The base under the products have to be even, stable (secured against possible settlement) and leveled - an element has to adhere to the prepared base over its entire lower surface - in case when the base is uneven and/or unstable, one should stabilize/level it on the contact surface with the use of materials such as, e.g. gravel (pebbles/broken with a grain size of 0.4 mm) with a thickness of min. 15 cm or cement screed with a thickness of min. 3 cm on a sand bed with a thickness of 10 cm; the prepared base should have a surface wider by at least 10 cm on each side of an element.

12.2. Indoor use:

12.2.1. Inside the rooms, one can use Modern Line products made only of architectural concrete and made of concrete and proper wood (according to item 4 "Product data sheet").

12.2.2. Preparation of the base:

Placement of products made of architectural concrete in accommodation/service rooms should be dependent on the fixed load transmitted to the structure of the ceiling/floor/object.

13. STANDARDS AND CERTIFICATES:

Modern Line products are in compliance with Polish standard PN-EN 13298: 2005. "Prefabricated concrete units. Elements of small architecture of streets and gardens".

