



PRODUCT DATA SHEET

modern line 

PLANTERS

PRODUCT DATA SHEET: PLANTERS

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 – $N_w < 6\%$ - 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 PLANTERS:

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.

3.8. Frost resistance - High water tightness (low absorbability) of GRC concrete makes it resistant to adverse winter atmospheric conditions.

3.9. 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'S NAME	PRODUCT'S CODE	DIMENSIONS (CM)	WEIGHT (KG)	WALL THICKNESS (CM)	CAPACITY (L)	CONCRETE COLORS	USE	CONCRETE SURFACE
REGULAR	D 39 M	length 39 width 39 height 45	64	upper edge: 2 lower edge: 4	43	white, concrete, steel, carbon	indoor/outdoor	natural
	D 79 M	length 79 width 39 height 45	130	upper edge: 3 lower edge: 5	85			
	D 119 M	length 119 width 39 height. 45	180	upper edge: 3 lower edge: 5	135			
	D 79 S	length 79 width 19 height. 45	75	upper edge: 2 lower edge: 4	38			
	D 119 S	length 119 width 19 height 45	110	upper edge: 2 lower edge: 4	58			
	D 79 L	length 79 width 79 height 45	210	upper edge: 3 lower edge: 5	200			
	D 119 L	length 119 width 79 height 45	290	upper edge: 3 lower edge: 5	310			
REGULAR with saucer	DP 39 M	length 39 width 39 height 45	71	upper edge: 2 lower edge: 4	40			
	DP 79 M	length 79 width 39 height 45	145	upper edge: 3 lower edge: 5	81			
	DP 119 M	length 119 width 39 height 45	209	upper edge: 3 lower edge: 5	127			
	DP 79 S	length 79 width 19 height 45	81	upper edge: 2 lower edge: 4	36			
	DP 119 S	length 119 width 19 height 45	120	upper edge: 2 lower edge: 4	55			
	DP 79 L	length 79 width 79 height 45	245	upper edge: 3 lower edge: 5	184			
	DP 119 L	length 119 width 79 height 45	344	upper edge: 3 lower edge: 5	290			
CUBE	DCB	length 39 width 39 height 90	150	upper edge: 3 lower edge: 5	76			
BIG	DSB	length 79 width 79 height 90	370	upper edge: 3 lower edge: 5	410			

5. USE:

Architectural concrete is not resistant to scratches and impact, in particular with sharp objects. 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 external securing. A protective insert should be placed inside the pot to prevent direct contact of the soil with the pot surface, or the walls should be sealed with polystyrene to protect them (the expansion of wet soil due to freezing may lead to mechanical damage to the pot). Do not use de-icing agents and sharp tools for removing snow and direct contact with ice from the architectural concrete.

6. MAINTENANCE AND CLEANING:

Products made of architectural concrete 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.

	DCB DSB	D79M D119M, D79L D119L DP79M DP119M, DP79L DP119L	D39M D79S D119S DP39M DP79S DP119S
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. INTENDED USE:

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

11.1. Outdoor use:

11.1.1. 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.

11.2. Indoor use:

11.2.1. Preparation of the base:

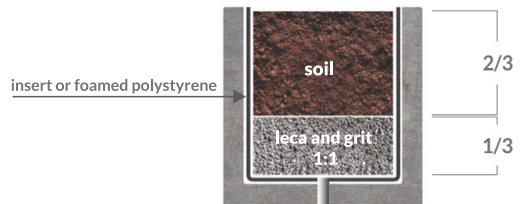
Placement of products made of architectural concrete in accommodation/service rooms should be dependent on the fixed load transmitted to the structure of the ceiling/floor/object.

12. USE RECOMMENDATIONS*:

12.1. **Selection of the pot size:** Size of a pot should be always adjusted to the size of a root ball of a plant (volume of spoil in a pot should be at least twice greater than the root ball). In case of planting a pot with young perennial plants it is recommended to replant them every year to a pot larger by 1 size or to use a larger pot in the first place (note: a size too great may cause growth of roots instead of the aboveground part of a plant). A height of a pot should be at least equal to 1/3 of a plant height. To avoid drying of soil too quickly, it is recommended that one uses the pots with a depth of at least 40 cm for garden plants.

12.2. **Filling of a pot:** Prior to planting it is recommended that one fills the bottom of a pot with a drainage layer (e.g. leca) allowing the roots to breathe and the excess water to drain to the bottom. Drainage layer thickness depends on the size of a pot and root system. It is assumed that the drainage layer in large and huge pots should be from 10 to 15 cm. A protective insert should be placed inside the pot to prevent direct contact of the soil with the pot surface, or the walls should be sealed with polystyrene to protect them (the expansion of wet soil due to freezing may lead to mechanical damage to the pot).

FILLING MODERN LINE'S POTS- RECOMMENDATIONS



12.3. Procedure after season:

Due to the cultivation nature it is recommended that one plants pots standing on the outside with species resistant to frost. In case of less resistant plants it is recommended that one lays the inside of the pot with expanded polystyrene/other insulation material (it is assumed that the layer should be about 2-3 cm) or move it to the warmer place.

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".

