

GRC Technical Brochure



ALUMINIUM FACADE
SYSTEMS LTD



Technical Specification

Overall Information

1.	Group of products	GRC
2.	Name of products	Facade panels
3.	Material	Architectural concrete
4.	Project specification	Individual Technical Documentation
5.	Colour	According to the accepted sample, design and mock up
6.	Class of concrete	C50/60 ; mix grade 18P
7.	Impregnation	Hydrophobized
8.	Texture - type of finish	Smooth, sandblasted, other on request

Features

9.	Water absorbtion	7 %
10.	Bending tensile strenght	$\geq 3,0$ MPa
11.	Frost resistance	F 150
12.	Durability	Satisfactory - Suitable for normal conditions of use
13.	Density by weight	2300 kg/m ³
14.	Reaction to fire	A1 Class
15.	Weight	According to the drawings
16.	Permissible dimensional deviations	Length and height > 3000 mm +/- 6
		Edge Returns + 12-0
		Angular variation of moulded returns <75 +/- 1
		Angular variation of moulded returns <75 +/- 1,5
		Thickness - facing coat + 2-0
		Thickness - structural material + 5-0
		Variation from squareness - different in length of diagonals < 2000 mm-3
		Variation from squareness - different in length of diagonals > 2000 mm-6
17.	Condition for the use of the product	Products for external and internal use in public and private places, not subject to loads from vehicle traffic and de-icing salts, for single or composite applications, for composite applications use spacer joints.

The concrete

It has been over 40 years since PEBEK had recognized concrete as a great material to achieve our ideas, develop new possibilities and creating our surroundings. This material gives various designing possibilities. We embrace The Concrete with all the attributes it comprises. Colour differences, shades or cloud effects are the main characteristics and its virtue at the same time. Its virtues underline natural origins. That gives to both the Project Creator and the Customer belief that we create unique material made on special request. Only best suppliers are allowed to work with PEBEK.

How the concrete lives and how we cope

As said, The Concrete is made of natural raw materials. Small dents, pores, tension lines, defects or efflorescence might be visible. In the beginning It is highly important to set material samples with eventual colour and finish. Then the mock'up is essential. The mock'up is a part of façade and embraces repair system as well. It is worth underline that our concrete is not an artificial material and comes from the nature literally. It is influenced by changing weather conditions in which it operates, including differences in temperature and humidity. Our concrete absorbs water from the air and gives it off. Therefore, panels of different dimensions may dry differently. That may cause stains, and thus differences in shades may be visible in the same batch of materials.

Efflorescence is a natural phenomenon and a permanent feature of all cement-based materials. They are created as a result of the reaction of calcium hydroxide, which is one of the products of hydration of cement with carbon dioxide from atmospheric air. They cannot be completely ruled out. They might be visible under unfavorable conditions

Hydrophobization is the basic form of protecting the concrete against water, dirt and dust penetration. Importantly, hydrophobization allows the concrete to breathe. However, it does not provide any protection against mechanical damage, acids or anti-graffiti.

Tension lines do not affect the concrete technical conditions. They might not be visible on small samples. Small samples will never reflect all the qualities. For this reason it is so important to evaluate the concrete on the basis of larger panels and mock'up.

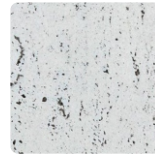
Production moulds - moulds are made of best available materials and craft techniques. Dimensional tolerances are an integral part of production moulds and are always visible on the ready made elements. Production moulds are constantly renewed due to its usage. For this reason, slight differences might be inevitable.

PEBEK always refers to particular design and project. The above description is for information purposes only and cannot constitute the basis for any complaints. This especially applies to changes in specifications and design errors or failure to follow the manufacturer's guidelines.

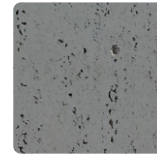
Colours and finishes

PEBEK offers you a wide range of colours and finishes. Another option is your own colour and finish made on upon request!

Our standards colours



smooth white

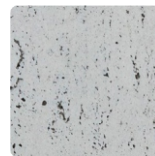


smooth grey

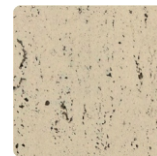


smooth anthracite

Our request colours offer



smooth light grey



smooth creamy



smooth brick faced

* The above photos might differ due to printed reasons.

Our offer

		FINISHES			
	COLOURS	Smooth	Sandblasted	Pattern/Riffle	Polished
1.	White	✓	✓	✓	✓
2.	Light grey	✓	✓	✓	✓
3.	Grey	✓	✓	✓	✓
4.	Anthracite	✓	✓	✓	✓
5.	Creamy	✓	✓	✓	✓
6.	Brick faced	✓	✓	✓	✓

PEBEK recommends ordering total amount of the material right away. That might limits the risk of different colours shades.

Must have information

Small samples are for information purposes only. The other step is to deliver larger panels or mock'up eventually. The final and desired colour and finishes are the subject to be accepted before actual production process. All the colours, finishes and shapes are our own discoveries based on experience and long term cooperation with our Customer.

All the products are made of natural raw materials and this the colours, finishes might be the subject to slight differences. These advantages are characteristic and desirable features.

The pigments used in the production process are UV, weather and light resisant. They are also not soluble in water.

Aging process is natural process and cannot be the subject for any complaint. The same applies to weather or environmental conditions and its influence on the object.