COMPOR Ltd



Fiberglass composite



Application in railway infrastructure

COMPOR LTD

Fiberglass composite structures have the following advantages over metal and / or concrete structures:

- composite is 4 times lighter than metal;
- the material does not corrode;
- resistant in aggressive environments;
- · resistant to chemicals:
- UV rays do not affect the composite;
- the warranty period of the anti-slip coating on the surface of the platform and transitions - 25 years;
- minimal maintenance costs for composite structures the material does not need to be re-painted (the material is dyed in bulk) and has a long-term aesthetic appearance with a 75-year warranty.
- material, if necessary, can be produced with dielectric and antistatic properties.
- $^{\circ}$ the material does not lose its properties in the temperature range from 120 $^{\circ}$ C to + 250 $^{\circ}$ C.
- easy installation.



The COMPOR company develops projects and carries out construction, repair, restoration and maintenance of buildings, structures and structures made of modern building material - fiberglass composite:

- railway platforms and crossings over railway tracks;
- pedestrian bridges;
- stairs and fences;
- traverses and brackets;
- protective shields over the contact network;
- service platforms;
- cable trays;
- cable duct covers;
- lighting masts;
- bridges cladding;
- noise protection fences;
- service constructions;

- protective boxes and outlets for soil from oil products;

Structures, modules or structural elements are designed for transportation by conventional transport. Due to the light weight of the material, the installation of structures of aprons, crossings, fences, crossing bridges and other structures can be carried out in remote places.

During the construction and / or reconstruction of aprons, there is no need for train breaks.

All of the above facts reduce cash costs by up to 25%. The material of construction provides corrosion resistance, reduced maintenance costs and a long service life.

The firm "COMPOR" offers the following services related to the construction / reconstruction of aprons, railway crossings and other structures:

- 1) fully carries out topographic and geological survey and technical survey;
- 2) design, construction and renovation of objects is carried out in accordance with building codes.

1. Railway platforms

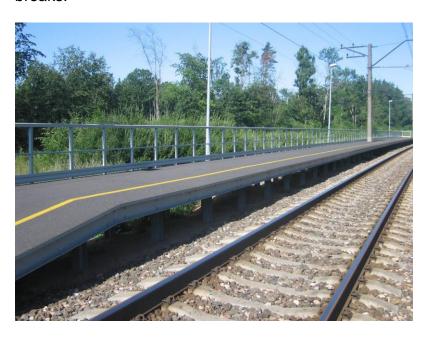
Platforms - a structure of a passenger stopping point made of fiberglass composite material with fences, ramps and railway crossings with an anti-slip coating. The design takes into account the needs of people with disabilities. Dimensions of this apron:

- 1) height 550 mm;
- 2) width 2.585 m;
- 3) length 84.00 m.

Installation time: up to 3 weeks.

Due to the light weight of the material, the installation of structures of aprons, crossings, fences, crossing bridges and other structures can be carried out in remote places.

During the construction and / or reconstruction of platforms, there is no need for train breaks.



Platform – station Dendrarijs (Latvia)







Platform, Moscow, Russia







Platform - station Depo, Moscow, Russia





2. Railway crossings

Railroad pedestrian crossing is a structure across the railroad tracks made of fiberglass composite material with a wear-resistant anti-slip coating. The dimensions of the railway crossing are according to the developed project.

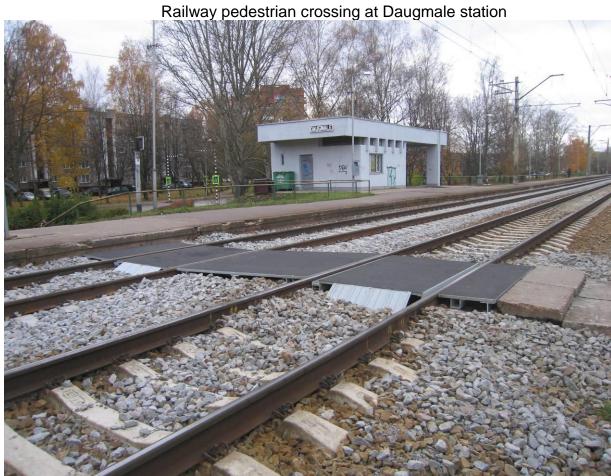


Railroad crossing made of concrete before reconstruction



Railway pedestrian crossing at Janavarti station





Pedestrian crossings can be designed in various sizes, depending on the specifics of the place.

Crossings from fiberglass composite profiles are being developed by order of the Latvian Railway.

3. Ladders and platforms for maintenance of the contact network



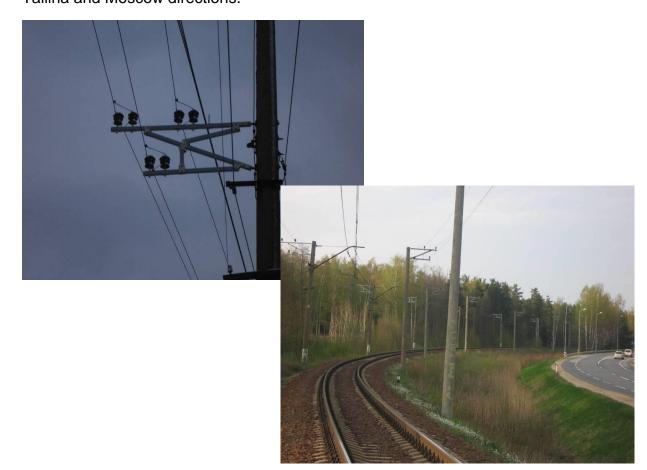
Production of stairs for the size of the project or at the request of the Customer. Ladders do not conduct electricity. Structures do not require grounding. Lightweight construction.

Can be collapsible.

4. Traverses and brackets

Due to its properties, such as dielectric and corrosion resistance, fiberglass composite traverse structures are successfully used in the reconstruction of power lines on the Latvian Railway.

At the moment, there is a partial replacement of traverses in the Jurmala, Tallina and Moscow directions.



5. Shields over the contact network

The firm "COMPOR" from fiberglass composite material produces structures of protective shields over the contact network.



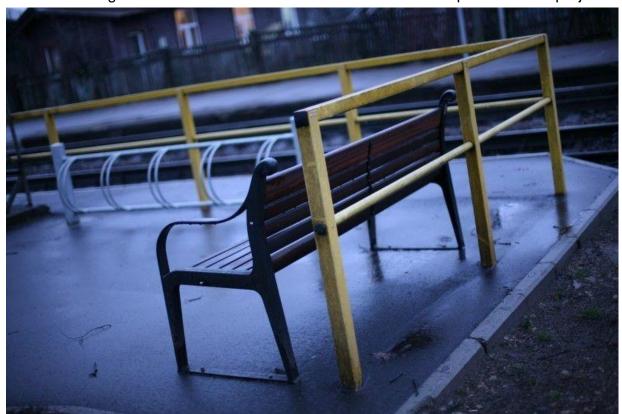


Due to the modulus of elasticity of the fiberglass material, the shield structures perfectly withstand impacts and, unlike metal structures, also do not deform under mechanical stress.



Railroad fencing structures that do not require grounding are made of fiberglass composite material with a standard height of 1.10 m.

The length of the fences is in accordance with the developed technical project.

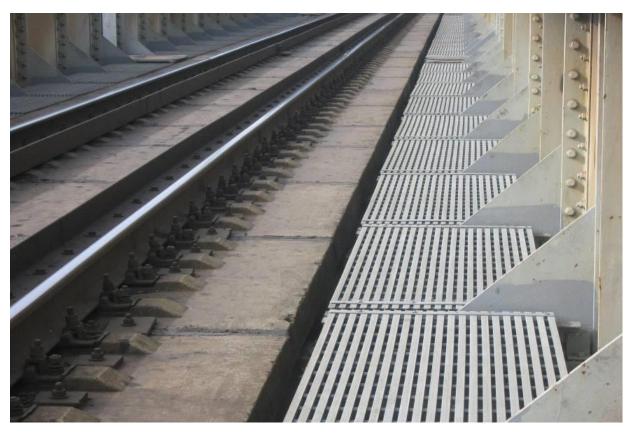


Station Brasa (Latvia)



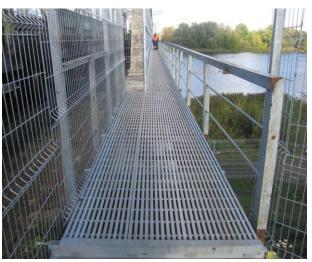
7. Railway bridges and overpasses

The company "COMPOR" in cooperation with the State Joint Stock Company "Latvian Railways" carries out the reconstruction and construction of railway bridges, overpasses and overpasses. The most widely used fiberglass composite profile in these structures is the grating.



Railway bridge in Ogre





Pedestrian bridge in Jelgava before/after reconstruction



Technological overpass (Latvia)



Technological overpass (Estonia)

8. Noise protection fences

The "COMPOR" company has developed a new product - noise protection screens. Depending on the project and the requirements of the Customer, there are several types of noise protection screens:

- completely opaque from panels,
- completely transparent from shockproof glass;
- combined panels and shockproof glass.

In the case of a combination of a noise barrier with a transparent part, the shockproof glass and the panel are fixed with special elements - corners made of fiberglass composite material.





All panels can be equipped with security cables. In the event of an accident, the screen is not separated from the structure.



9. Protective channel covers



Concrete covers before reconstruction



Fiberglass composite covers after renovation

10. Cable "bridges"



Cable "bridge" across the Misa river (Latvia)



Cable "bridge" along the railway tracks (Latvia)