



Střeň – Červenka

ČD DDC, modernization of railway

country: Czech Republic

realization: March – November 2004

material: Armatex® G 55/55

..... 32.200 m²



ARMATEX® G

woven geogrid from high-strength PET with PVC adjustment for soil reinforcement

purpose of usage:
soil reinforcement



The "ČD DDC, Modernization of the Střeň - Červenka route section" construction is one of the set of constructions realized within the modernization of the selected network of Czech Railways transit corridors.

Considering the international and passenger and freight transport, the Přerov - Česká Třebová track section, including the modernized Střeň - Červenka section, is a connection branch of the II transit corridor. It is also a part of the connection of west - east which improves the connection of Prague with the north Moravia, Poland and Slovakia. In consideration of the required bearing power of the railway substructure for corridor structures, the current condition of the track section seems to be unsatisfactory.

With respect to the locality where the railway line runs through the protected landscape area "Litovelské Pomoraví", the designer of the project proposed a technology of replacement of trackbed layers, without removal of track, using the RPM 2002 machine.

Stiff extruded polypropylene geogrid was originally proposed in the project. Based on significantly better ratio of price, quality and features this type of geogrid was replaced by woven polyester geogrid coated with PVC trademark **Armatex® G**. Geogrids **Armatex® G** are much more flexible than other stiff geogrids. This fact played very important role during decision, which type of geogrid will be finally used. Flexibility of the **Armatex® G** geogrid also assures more comfortable style of placement.

Complete reconstruction of a railway bed was done using the RPM 2002 rig by the Swietelsky company. The machine consists of 2 traction locomotives with 8 wagons coupled to each locomotive. The wagons are filled through conveyor belts with old and new aggregate. Between these mobile units is positioned a train of 7 wagons that are in charge of the reconstruction.



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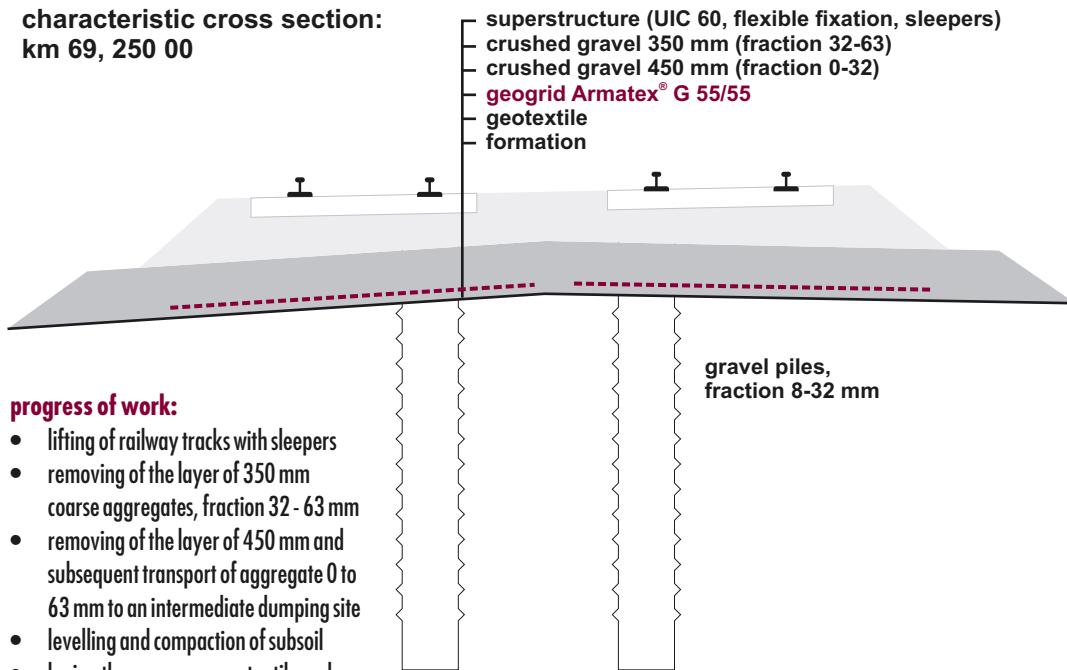
Factory Production Control Certificate 0799-CPD-19



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characteristic cross section:
km 69, 250 00



progress of work:

- lifting of railway tracks with sleepers
- removing of the layer of 350 mm coarse aggregates, fraction 32 - 63 mm
- removing of the layer of 450 mm and subsequent transport of aggregate 0 to 63 mm to an intermediate dumping site
- levelling and compaction of subsoil
- laying the nonwoven geotextile and the woven geogrid **Armatex® G 55/55**
- relaying precleaned aggregates, fraction 0 – 32, thickness 400-450 mm, compaction
- laying layer of crushed gravel, fraction 32 – 63, thickness 350 mm, compaction
- laying of rails with sleepers, filling up of aggregates up to the superstructure level
- packing of sleepers

The company Kordárna supplied the whole project of Modernization of railway Přerov – Česká Třebová more than 90.000 m² **Armatex® G** woven PET geogrid. These reinforcement geogrids **Armatex® G** are designed exclusively to ensure the reinforcing and strengthening properties of embankment. The aim is to attain an equal settlement conditions in the earth structure and an even distribution of the embankment load on the unmade ground.

investor:

ČD, a.s.

designer:

MCO Moravia Consult Olomouc, a.s.

Kolejconsult & servis, spol. s r.o.,

Brno

Sudop Brno, spol. s r.o.

constructor:

Tomi Remont, a.s., Prostějov

realization:

March – November 2004

