

Reinforcement of columns with S&P C-Sheet 240 400 g/m²

Project: Extension of commercial building *Laubenhof* in Zug, Switzerland (ZG / CH)

Year: 2015

Description: The planned extension of residential building and department store *Laubenhof* in Zug required the reinforcement of 34 columns in two parking floors. The pre-fabricated hollow-core columns were injected with high-strength shrinkage-free cement mortar beforehand. Different additional loads will be transferred by wrapping the columns in carbon fibre mesh (horizontal and vertical), as statically required. The concrete surface is prepared by grinding, onto which the S&P C-sheets are then applied using the vapour-permeable S&P Resicem, ensuring a multi-layered load-transferring connection. The structure is braced throughout the application period. For mechanical protection, the sheets are covered in a ca. 15mm thick protection mortar.

Materials: 215 m² S&P C-Sheet 240, 400 g/m², 300 and 600 mm wide rolls

Building time: The application of the S&P C-Sheets was carried out in several stages.

Pictures: a) Application of C-Sheets 240 400 g/m², 600 mm wide, horizontally from the top down
b) Fresh application on column
c) Column covered in quartz sand, so as to ensure the adhesion of the protection mortar.
d) Completed reinforced column, C-Sheet with 15 mm protection mortar

