

Deck slab reinforcement with S&P CFK-laminates 150/2000

Project: Restoration of pedestrian underpass on Bodenstrasse in Küssnacht, Switzerland (SZ / CH)

Year: 2014

Description: In the process of restoring the underpass on Bodenstrasse street in Küssnacht, the secondary reinforcement had to be adapted to fulfil current norms. According to static calculations, this requires S&P CFK-Laminates 150/2000 with 50x1.2 mm dimensions at intervals of 50 cm. The concrete surface was prepared by hydro-demolition, after which the laminates could be applied onto it using S&P Resin 220 to form a force-transferring bond. So that at least one lane of traffic could be upheld on the road, the reinforcement was carried out in several stages. The application of laminates was carried out in an unloaded state, without traffic loads.

Materials: 435 m' S&P CFK-Laminates, type 150/2000, 50 x 1.2 mm, $F_{ld} = 60$ kN

Construction time: The reinforcement work using S&P CFK-Laminates was carried out in four stages over the course of 3 months.

Images: *a) Laminates applied onto the prepared bearing substrate*
b) Joint areas between laminates
c) Surface protection mortar between the laminates
d) Completed reinforced deck slab, seen from below

