

## Stolmen Bridge

C4-23  
Reference  
Project



(Photo courtesy of Bergens Tidende, photographer: Jan M. Lillebo)

**OWNER/CLIENT:** Norwegian Road Authorities, Hordaland  
**CONSULTANT:** Instanes A/S  
**CONTRACTOR:** NCC Eeg-Henriksen  
**MAIN SPAN:** 301 m (world record for free-cantilever bridges)

**CONCRETE VOLUME:** C65 9.850 m<sup>3</sup>  
 LC60 1.600 m<sup>3</sup>

Stolmen bridge, built in 1998, with a main span of 301 m and total length of 467 m, holds the current world record for free-cantilevering concrete bridges. 184 m in the middle of the of the main span was built with high-strength lightweight aggregate concrete LC60. C65 ND concrete was used for the rest of the superstructure.

Mean compressive cube strength , 28 days: 70,4 MPa  
 Mean density of watercured LC60 cubes after 28 days: 1940 kg/ m<sup>3</sup>



**MIX DESIGN FOR THE LC60: kg/ m<sup>3</sup>**

Cement	420
Silica	35
Sand (0-8)	700
HF Leca 800, 4-12 mm	600
Water (absorbed in aggregate)	48
Water (added)	160
AEA (Rescon L)	0,08
Stabiliser (Melstab)	10
Retarder (Rescon R)	1



CONCRETE

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