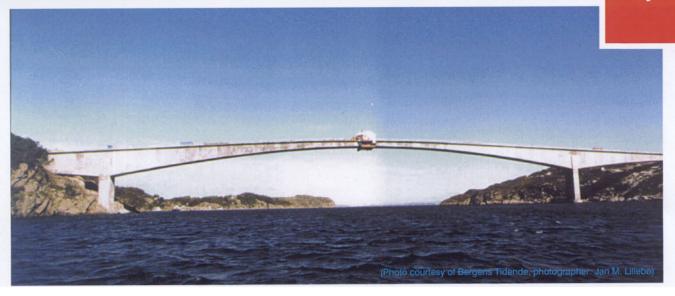
Elkem Microsilica

Stolmen Bridge

C4-23 Reference **Project**



OWNER/CLIENT:

Norwegian Road Authorities, Hordaland

CONSULTANT: CONTRACTOR: Instanes A/S

NCC Eeg-Henriksen

MAIN SPAN:

301 m (world record for free-cantilever bridges)

CONCRETE VOLUME: C65 9.850 m³

LC60 1,600 m3

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: Mean density of watercured LC60 cubes after 28 days: 70.4 MPa 1940 kg/m³



MIX DESIGN FOR THE LC60: kg/m2 Cement 420 35 700 Sand (0-8) 600 HF Leca 800, 4-12 mm Water (absorbed in aggregate) 48 Water (added) 160 AEA (Rescon L) 0,08 Stabiliser (Melstab) 10 Retarder (Rescon R)

CONCRETE

REFERENCE PROJECT

JUNE 2000

C4-23

Elkem Microsilica® is a registered trademark and belongs to Elkem Materials



Elkem ASA, Materials P.O.Box 8126, Vaagsbygd N-4675 Kristiansand Norway

Telephone: +47 38 01 75 00 Telefax: +47 38 01 49 70 Internet: www.elkem.com

e-mail: microsilica.materials@elkem.no

