A high strength concrete delivering exceptional wear and abrasion resistance.

THE CHALLENGE
Brighton and Hove Council wanted to maximise the abrasion resistance of the concrete used in the Brighton-Ovingdean Coast Protection Scheme. With its shingle beaches, marine concrete structures on this part of the south coast experience very high abrasion damage due to the shingle being thrown against them during heavy storms.

OUR SOLUTION
To achieve an abrasion resistant cast in-situ concrete, Tarmac proposed Toproc ES for use in the most exposed areas. The longterm wear resistance of Toproc ES had been well proven in many high abrasion applications. With a typical 24-hour strength in the range of 25-30N/mm² and a 28-day strength of 60N/mm² (typically 70-90N/mm²), the mix design for the concrete provided excellent abrasion and wear resistance. Toproc ES was successfully trialled in repairs to a stairwell in the existing sea wall in January 2002. Following on from this trial, it was specified for the construction of the groynes, stairwells and ramps - the areas most susceptible to abrasion within the reconstruction of 1,800km of sea wall.

RESULTS AND BENEFITS
6,000m³ of Toproc ES concrete was supplied by Tarmac for the project over the 18-month period up to June 2003. The performance of Toproc ES in-situ concrete matched the trials that had been done previously on the original stairwell. Its rapid strength development ensured it was able to quickly deliver a high level of abrasion protection ideally suited for use in the Coast Protection Scheme project.

For more details contact your toproc@tarmac.com or call 0800 1 218 218