



Proven performance

**Toplight C lightweight structural concrete,
NOBU Hotel in Shoreditch**

The challenge

To construct a roof top extension on top of the luxury hotel NOBU in Shoreditch. The plan was to add an additional 1 storey of hotel rooms, suites, dining areas and open terraces that would replace the existing planted roof.

Our solution

To supply Tarmac Toplight C lightweight structural concrete in a pump mix with the addition of steel fibres, ensuring maximum weight loss of 35% with no compromise on structural concrete performance.

Results and benefits

The lightweight concrete mix design LC32/35 with a density between D1.8 - D2.0 and containing structural lightweight aggregates was pumped 40 metres vertically on to the new composite deck floor. By adding steel fibres into the lightweight mix the composite metal deck system could be installed without the need for traditional expensive and slow steel reinforcement across the deck. The use of lightweight concrete, furthermore, reduced the load by 35% which meant the existing structure did not need to be reinforced or underpinned. The construction programme time was also reduced considerably which ensured completion of the work was done in the shortest time possible and NOBU hotel could quickly resume business as normal.



Argex structurally engineered, lightweight aggregate.



Tarmac. Building  our future.