



Fly Ash, Lytag and Logistics Solutions

Heathrow Terminal 5

Fly Ash performance

Fly Ash was the material of choice for making concrete for aircraft parking areas and floor slabs for BAA's Terminal 5 at Heathrow. In May 2003 CEMEX signed a five-year agreement worth over £4 million with BAA to supply 130,000 tonnes of Fly Ash.

Fly Ash was chosen because it provides benefits both to the plastic and hardening properties of the concrete. BAA has found that Fly Ash consistently gives the extra durability required in concrete pavements, whilst providing the good cohesion required for their placing techniques.

Specific needs

John Harden, Head of Construction at BAA said: "We had very exacting requirements when searching for a supplier for this project. The materials and expertise needed for constructions such as airport terminal buildings and aircraft standing areas are very specific indeed. The combination of CEMEX's technical expertise along with its proven track record in projects of this size made it the ideal choice."

Multimodal transport (ISO Tanks)

Environmental considerations were also critical. CEMEX has been able to supply by rail, using specially manufactured ISO-Veyor units. In conjunction with Bulk Technologies, CEMEX became the first company to develop and use an innovative, intermodal, environmentally

friendly bulk transport system. This system can be used on rail or sea as well as road. The containers can be transferred between road-going flat-bed trucks, rail-based rolling stock and a variety of ships, enabling the optimum solution to be arranged for each journey.

Peter McColm, Laing O'Rourke Bulk Materials Manager for Terminal 5 said: "The planning permission for the Terminal 5 project requires all of the bulk materials including Fly Ash to be transported to site by rail. The intermodal ISO Tank solution that CEMEX has developed was ideal to enable us to transport the tanks by rail to our logistics centre and then transfer them by road to the construction site two miles away."

Consisting of a cylinder-shaped container with a 34m³ capacity, the ISO-Veyor unit has been constructed within the frame dimensions of a standard 30' commercial container, but can carry greater weights. The payload restriction is due to the road transport limits of 44 tonnes gross vehicle mass; in tests 30 tonnes of ash and 38 tonnes of cement have been loaded.

The containers are filled at source, remaining sealed until the point of delivery, removing the need for immediate handling of the contents. Another benefit is that the units can be left on site as a method of weatherproof storage until their contents are required.

Their use on this contract has saved over 2.1 million road miles, with the associated financial and environmental benefits.

Internal floors

Over 7000 tonnes of Lytag lightweight aggregate was also supplied by CEMEX for the internal floors of the terminal and satellite buildings. The no-fines lightweight screed was laid to a thickness of 65mm to cover an area approx. 125,000m².



For further information please contact Customer Services on:

Tel: 01788 542 111
Fax: 01788 540 166