



## Runway recycling at Blackpool Airport

Blackpool International Airport is a base for several commercial airlines with regular international and domestic services together with helicopters servicing the gas rigs in the Irish Sea. Aircraft movements average about 75,000 per year and rising. In 2009, Colas submitted and won a tender for resurfacing works to a 1000m long section of the 10/28 runway and strengthening of Taxiway Alpha.



### Project Details

Colas was awarded the contract for resurfacing up to a 1000m long section of the 10/28 runway and strengthening of the Taxiway Alpha utilising Marshall Asphalt surface course and binder course.

Colas' proposal was to use the Repave process in order to achieve savings, in materials, time and cost.

The whole of the runway works were completed over 10 nights between the hours of 21:30 and 06:00.

The total area resurfaced was 16m wide (8m either side of the runway centerline). The edges were planed 30mm and the centre was profile planed (0-10mm) in order to modify the final centerline levels. The length of works were restricted each night to a total un-grooved runway length of 99m.

#### Reduced costs

40% reduction in new asphalt

56% reduction in planing

29% reduction in energy consumption

28% reduction in CO<sub>2</sub>

49% reduction in lorry movements on local roads

10 days of night works to complete the runway



The Repave process also treated the cracks in the underlying runway surface which were still present after the initial planing operation negating the need for a separate repair prior to surfacing. The runway was grooved after 48 hours and in order to facilitate this, other works were programmed on adjacent taxiways on alternate nights.

The heat retained in the recycled existing asphalt meant that a new overlay much thinner than a conventional bond coat could be laid. In the case of Blackpool

Airport, this was a 30mm layer Marshall Asphalt Surface Course. The combination of heat in the new asphalt together with the retained heat in the recycled material forms a strong asphaltic bond.

In addition to the runway, 8500m<sup>2</sup> of Taxiway Alpha received substantial strengthening with up to 200mm asphalt. This was carried out on alternative nights to the runway to take advantage of the delay required on the grooving. In addition, Runway AGL lights and manholes were

relocated and raised as part of the works followed by de-lethalisation and soiling / seeding. Overbanding was also carried out to the cracks on the areas of the runway not being resurfaced. The works were completed on programme and to the client's satisfaction.



**“The real benefit that the Repave process offers is the savings in CO<sub>2</sub> and energy usage. It ticks all the boxes for sustainability and meets the Client’s objectives.”**

Simon Downing, Airfields Manager

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