

*ULTILAYER*

# Proven performance

**The ultimate solution to reflective cracking and road surface deformation  
Rhoose Airport Roundabout**

## THE CHALLENGE

Cardiff Airport has undergone a huge transformation in recent years with improvements made to the terminal providing air travel for more than 1.3 million passengers each year. One of the main roundabouts used to access the Airport car park and main maintenance hangar is situated just North of the Airport linking the A4226 and B4265. Its location, on the main route to RAF St Athan and the Aberthaw Power Station and Cement works, makes it one of the most heavily trafficked roundabouts in South Wales. Surface course deformation and joint failure were common problems and previous patched repairs were also beginning to fail. The decision was made to resurface the entire roundabout and approach roads, (approx. 6700m<sup>2</sup>) however, budget restraints meant a full depth reconstruction was not a viable option.

## OUR SOLUTION

As the nominated contractor for carriageway maintenance within the Vale of Glamorgan, Tarmac were approached for early involvement in planning the scheme. They were asked to provide technical advice on a long term, cost effective surfacing solution that could be laid quickly to avoid disruption for road users. Following successful use elsewhere in the Vale of Glamorgan, an ULTILAYER 10 surface course was chosen as the most suitable material for this scheme. ULTILAYER combines a high performance polymer modified binder with selected aggregates to provide flexibility, strength and long term resistance to cracking and deformation.

## RESULTS AND BENEFITS

The client allowed works to be completed during normal working hours, with a partial road closure, but required that it was phased to minimise disruption to road users. The scheme was completed over six days and reopened on schedule. Around 650 tonnes of the existing surface course was planed out. Planings were sent to Tarmac's Llanwern site to be recycled and used in future projects. After regulating and minor patching of the binder course, 750 tonnes of ULTILAYER 10 surface course was laid in a single 40mm layer. Early involvement from Tarmac helped the client to meet their objectives of delivering a durable long term surfacing solution for this busy road while minimising disruption to road users.



Building  our future