

Shell Bitumen

LAYING THE PATH FOR A SMOOTH LANDING













PROJECT: Dubai Airport, Northern Runway

CITY/REGION: Dubai

COUNTRY: UAE



KEY FACTS

Benefits:

- Development of a bespoke product mix
- Consistent quality and on time delivery of bitumen throughout the project's duration

Application: Airport Runway

Product Family: Shell Cariphalte DB and FS

Client: Dubai Airport

INTRODUCTION

Dubai Airport is one of the world's busiest airports for international traffic and the key hub for air traffic into and out of Dubai. Spread over 7200 acres, in 2014 it handled over 2 million flight operations and around 70 million passengers.

In 2013 the airport announced an ambitious refurbishment plan for 2014 which included resurfacing its northern runway within a timescale of 60 days, a task which resulted in a temporary 26% cut to flights in and out of the airport. As a result, it was critical to ensure the successful resurfacing of the runway within the project timeframe, so normal operations could be resumed as soon as possible.

TECHNICAL AND LOGISTICAL CHALLENGES

Dubai Airport wanted to ensure that the resurfacing project resulted in a high performance runway, capable of withstanding the extreme local, climate conditions and with no risk of failure for at least 5 to 7 years. In addition, it required a guarantee of an uninterrupted supply of 30KT of bitumen throughout the duration of the project. This was coupled with the risk that any delay to the project would result in the airport suffering a loss of US\$1m in revenue for each and every day the project ran over the agreed completion date.

The challenge the airport faced was that no product existed within the market capable of meeting its product specifications.

THE SOLUTION

Shell's Bangkok regional technology centre was able to work in collaboration with Dubai Airport to develop a bespoke product, "Cariphalte DB", capable of meeting the unique requirements of the project. Furthermore, through extensive testing, they were able to demonstrate the product's capability to meet the local climatic challenges and runway durability requirements.

To address the logistical challenges, Shell set up two mobile PMB plants close to the contractor's hot mix site. This was to ensure that should an outage occur with one of the plants, bitumen could continue to be delivered on time throughout the duration of the project.

THE RESULTS

The project was successfully completed on time, with Shell able to deliver 30KT of Cariphate DB and FS, on time and on specification throughout the project. In addition, the project was executed without any HSSE related incidents.

This resulted in the runway opening 4 days ahead of the original planned completion date and with minimal disruption to the airport's operations.

FOR FURTHER INFORMATION

Please contact your Shell Bitumen representative or visit: www.shell.com/bitumen