

# Bituthene® System Accelerates Military Base Development

Oman Ministry of Defense Military Base gains the highest waterproofing integrity and protection.

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<b>Project</b>	Ministry of Defence Military Base in Oman
<b>Owner</b>	Ministry of Defence
<b>Main Contractors</b>	Dawood Contracting LLC, Steel Building LLC, Al-badi Contracting
<b>Engineer</b>	Hill International, Majan Engineering Consultants
<b>Distributor</b>	Khimji Ramdas LLC
<b>GCP Solutions</b>	Bituthene® waterproofing

## Project

### Oman Defence Military Base

The Ministry of Defence Military Base in Adam, Oman is a major base consisting of several military architecture structures, including administrative and operative buildings and accommodation blocks.

GCP Applied Technologies and Khimji Ramdas added value and cost savings to this demanding, military architecture project from the beginning through completion with technical expertise, on-site contractor training, timely delivery of supplies, and high performing products offering lifetime protection.

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# Challenge

## High temperatures and aggressive ground conditions

The initial specification was for a 1 mm light density polyethylene (LDPE) loose laid membrane to be applied to the foundations and individual footings designed as a raft construction.

However, the military architecture project was located in sandy terrain, where often high-speed wind, dust, and unexpected sand storms cause low visibility. The specified membrane had to protect the concrete from these aggressive ground conditions as well as from high temperatures and humidity. To overcome these climatic challenges, the contractor needed a simple, fast, secure, and bonded membrane waterproofing solution with the fewest site logistics.

High Density Polyethylene (HDPE) durability and Bituthene®'s proven track record in similar ground conditions and climatic challenges motivated the engineering team to reconsider the original specification for the commercial building.

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## Solution

### A chemically resistant waterproofing solution

GCP proposed using Bituthene® 3000HC, an adhesive membrane, that is chemically resistant and provides superior protection against aggressive soils, ground water, methane, carbon dioxide and radon gases. Bituthene®'s twin seal overlap system, ensured highest waterproofing integrity and protection for the lifetime of the military project.

Bituthene® production and performance is audited for yearly independent Factory Production Control. Since 1997, Bituthene® product application and suitability has been certified by the British Board of Agreement (BBA) for water-tightness, durability, and gas resistance.

GCP's local distributor, Khimji Ramdas, supplied approximately 120,000 m<sup>2</sup> of Bituthene® membrane combined with 40,000 m<sup>2</sup> of GCP protection boards and 12,000 liters of fast drying primer formulated for Bituthene® products to this remote location in a timely manner, ensuring that the project was able to continue progressing on schedule.

#### Blue360<sup>SM</sup> Product Performance Advantage.

*Because every project, large or small, deserves the best level of protection.*

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