



# CASE STUDY



## Overview

Petroleum Development Oman (PDO) is the leading exploration and production company in the Sultanate of Oman. They deliver the majority of the country's crude oil production and natural gas supply, but above all they focus on delivering excellence, growth and sustainable value creation within and well beyond the Oil and Gas industry.

PDO is one of the companies that truly believes in energy conservation. Energy conservation in buildings is the reduction in building energy consumption without reducing thermal comfort. It usually results in better indoor air quality and occupant's productivity. Energy conservation in buildings is a must for all countries specially those situated in warm climates. Energy savings of the order of 15 to 20 percent are possible through conventional building designs aimed at minimizing the external heat gains.

## Project Details

**Ras Al Hamra 80 Villas**

**Area :** 30,000 m2.

**System :** EIFS Synergy System by Master Builder Solutions.

**Client :** Petroleum Development Oman

**Consultant :** ONJP

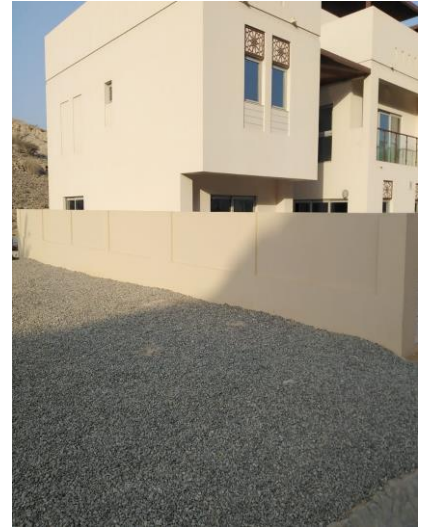
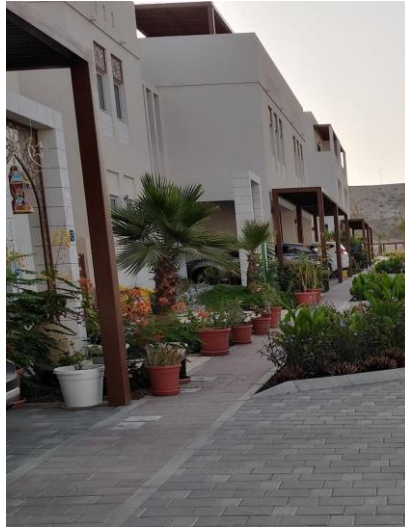
**Contractor :** OSCO

**External Insulation System**



## Challenges

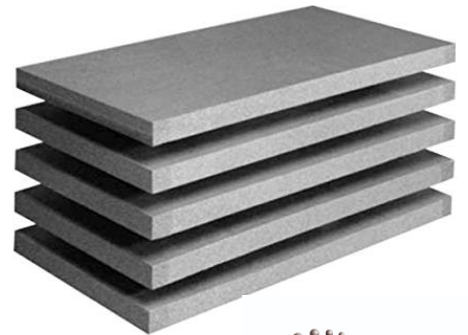
The project was a fast track project and the challenge was to allocate resources, equipment's and coordinate with the material supplier to ensure smooth and regular inflow of material so milestones and schedules are not effected.



The insulation used on this project was Neopor. This is a material patented and manufactured by BASF. Composed of small grey beads of polystyrene granules containing a blowing agent, which makes it expandable, these beads are manufactured into insulation.

Neopor works in the very same way as traditional insulation, with one major difference -- high-purity graphite particles infused into the cell structure give Neopor a reflective property and a distinctive dark gray color.

As radiant heat moves through Neopor insulation, it reflects it hundreds of times, significantly slowing down the transfer of heat and making it more energy efficient.



## Support from Manufacturer

Master Builder Solutions was the supplier of the EIFS system. They were also involved in providing site assistance, technical discussions with contractor / consultant and also in providing training to all our staff working at site. All working on site were certified by Master Builder Solutions. The material delivery was on time and were quick to resolve any technical issues at site.





## Advantages of EIFS System

Energy Conservation Measures with (EIFS) do not always yield instant financial incentives; however, they increase the national energy security, reduce environmental pollution, reduce dependence on conventional fuel, and so on. Savings for the client is seen in the reduction of power bills. The Advantages of the EIFS System are listed below.

**Energy-efficient** – conserve energy and lower costs, the exterior layer of insulation in EIFS reduces the loss of heat and air conditioning. Plus, when combined with the standard wall cavity insulation, the extra insulation layer boosts R-value. The air and water resistive barrier prevents air leakage and provides moisture protection.

**Code-compliant** – build with confidence, EIFS are included in the International Building Code (IBC) and International Residential Code (IRC) and undergo rigorous testing. Fire resistance, ignitability and much more, EIFS has been tested to meet today's building code requirements.



**Design versatility** – colors, textures and effects can make your architectural vision a reality. Go beyond the look of stucco; today EIFS offer virtually unlimited creativity, from wood and metal to stone effects and masonry veneer. EIFS can truly do it all!

**Durability** – designed to be highly flexible and low-maintenance, EIFS are specially-formulated to resist fading, cracking, dirt and more. Highly impact resistant EIFS can be easily achieved with various weight reinforcing mesh. An EIFS clad building will look fresh and vibrant for years to come, reducing maintenance costs.

**Fully-integrated** – when you build with EIFS, rest-assured that you've got all they key components needed for a high-quality, effective exterior wall system, backed by a single-source warranty.



## Photos



## Conclusion

Keeping up and even improving the works schedule at site was appreciated by the Client and Consultant. The works were completed to the satisfaction of the end user. As the project was a fast pace one the walls were precast, we had to use additional primer to ensure the bond between the substrate and the EIFS system. The contractor too was please with our professionalism exhibited in the execution of the project

We could partner with you on any of your upcoming EIFS project. Contact details are given below.

## System

