

# Urea Prill Tower

**Focus product:** Intercrete® 4841

**Location:** Doha, Qatar

**Client:** Qatar Fertiliser Company, Doha, Qatar

**Contractor:** Mouchel Group

**Summary:** Protective lining to concrete silo containing urea prills

## Background

11 metres in diameter, QAFCO's Prill Tower is designed to allow liquid urea at 150°C to form into pellets as it drops through a counter-current of air.

Elevated operating temperatures had weakened the concrete pore system and urea at high concentrations, mixing with washdown water, had formed crystals inside the open pores and cracks, further weakening the structure.

## The solution

Inadequate reinforcement was first strengthened to prevent further cracking and, after a 1 year trial of 4 potential lining products, Intercrete 4841 was chosen because not only had it performed well but "its mechanical characteristics were as close to the parent concrete as possible" - a vital point for the specifying Engineers. Also important was that Intercrete 4841 has a degree of flexibility to cope with the varying conditions inside the Tower. With excellent abrasion, chemical and water resistance, there was no doubt that Intercrete 4841 would provide the sustainable lining material that would protect the concrete and give the plant trouble-free operation for many years.

