

» Thermal insulation of huge tanks at Carbon Simorgh



Carbon black is a high-tech material which is used as a filler in the rubber industry. Important fields of use are not only car tyres but also gasket and insulation materials - such as Armaflex!

In 2002, the planning phase for a carbon black production plant began and after the preliminary studies a site in Mahallat (Iran) was chosen. This plant will go into service in 2007. On a 16.5 hectare site, Carbon Simorgh – a simorgh is a mythological bird in a Persian fable - built production facilities in which 40,000 tonnes of Carbon Black will be manufactured annually. Once project phases II and III have been completed, there are plans to produce 80,000 tonnes initially and 160,000 tonnes later on.

Carbon black is made from residual oil, which occurs as a waste product in the petrochemical industry and oil refineries, for example. The oil is stored in huge

tanks on Carbon Simorgh's site. For further processing the oil is heated to a temperature of +70° C. Trace heating keeps the tanks at the desired temperature. However, at outdoor temperatures as low as -15° C very high heat losses can occur. Therefore, after consulting Mr Hashemzadeh of Technicon (Technology and Industrial Construction of Iran), Carbon Simorgh decided to insulate the tanks with the elastomeric material Armaflex.

In April 2007, following consultations with Armacell, self-adhesive Armaflex sheets in a thickness of 19 mm were installed on the



four 10-metre high cylindrical tanks, two of which are 25 m in diameter and two 15 m in diameter. To protect the elastomeric insulation material against weathering and mechanical impact, the tanks were then covered with Arma-Chek D. As Armaflex and the Arma-Chek covering systems are still relatively new to the Iranian market, the employees of the insulation firm Nooavaran Pars Afroz of Teheran, headed by Mr Niroufar, received extensive training from Vance Brownhill, Technical Manager at the British Armacell company. In total, 4 650 m² of Armaflex sheet material and Arma-Chek D covering material were installed on the tanks. Both Mr Khoshbakhian, the Managing Director of Carbon Simorgh, and the technical department were very satisfied with the result.