Aguasay-Zapato gas pipeline, Venezuela

Case study 2009

Focus product: Intercrete® 4840 & curing membrane

Client: Petroleos de Venezuela, SA

Contractor: Antonio Rocchetta y Cia SA

Summary: External protection of 48,000m² of welded steel, gas pipeline before being buried

Background

This 23km pipeline carries 8.5 million m³ of gas per day at a pressure of 1200psi. PDVSA sought an environmentally friendly standalone coating with guaranteed corrosion protection for the remaining service life of the pipeline. Good adhesion to both bare steel and remaining areas of fusion bonded epoxy (the original coating) and tolerance of severe mechanical abuse were vital as the pipeline would be buried. It also had to be compatible with cathodic protection and be capable of application in remote field conditions 45km from the nearest town.

The solution

After extensive laboratory tests, Intercrete 4840 was the only product evaluated that met all criteria. Bare steel was grit blasted to SA2½ before receiving a 2mm layer, whilst the FBE sections were just sweep blasted to clean and enhance the bond. Intercrete 4840 is a polymer and epoxy modified cementitious coating which is applied without a primer, its unique reactive passivating mechanism giving immediate protection. Intercrete 4840 was successfully applied in spite of the blazing daytime temperatures.