Synavax™ sustainability accelerated

Sustainability Simplified.™
very Simple.

Case Study

Sipetrol

Award Winning Energy Saving and Asset Protection Coatings

GEOGRAPHICAL AREA:
Argentina

ISSUE:

Sipetrol needed a solution for the pipelines on their AM6 offshore platform to reduce heat loss from the transported petroleum product.

SOLUTION:

Heat Shield™ PT thermal insulation & corrosion prevention coating.

Coverage: 6-coats

RESULTS:

- ✓ Temperature reduction of 32F.
- ✓ Prevented corrosion of the tank.
- ✓ Allowed visual inspection of the surface.
- ✓ Stood up to the harsh salt air environment.
- ✓ Long lasting - 5-10 years.

Heat Shield™ Translucent PT was applied at an average thickness of 350 microns dry film thickness to the exterior of the pipelines. The surface temperature of the pipelines was measured to indicate reduction of heat loss.

Prior to being coated, the average temperature of the pipeline exterior was 140F (60C). After coating the lines with Heat Shield™ PT, the average pipeline exterior temperature was 107.6F (42C). Their average temperature reduction was **32F (18C)**. Heat Shield™ also provided corrosion protection in the severe marine environment.

- Customer Report Attached Below -

Heat Shield™ OVER PLATFORM AM6 – SIPETROL – MAGHELLAN

The application was done over an oil pipe that transfers petroleum from the vertical separators to the connection of the pumps that impulse the fluid to the AM3 platform, from were the petroleum is transferred to the continent.

It's a 6" diameter pipe, and 20 meters long, the total surface applied was around 10 sqm.

We split the pipeline on 3 sectors, on both ends we primered with Nanoprimer, and on the central section, of about 4 meters long, we applied Heat Shield™ over the pipe without primer.

The operation temperature of pipeline is 60 C, measured with a laser instrument, the temperature of the transported fluid (petroleum), is 56 C, measured with an analogic thermometer that is part of the control system instruments.

The main purpose of the application was to assure not heat energy lose of the petroleum along the pipeline.

We identified 7 marked points were thickness and temperature are about to be taken.

The application was done by spray on many coats. The first and second coat were been applied very thin, only at the third coat end the next others, the thickness of every coat was over the 4 mils (100 microns).

On the extreme of the heat source, we measured over the 550 microns of the dry film. Along this section, and getting away from the heat source, the film thickness reached the 450 microns (16 mils) as average.

The central section, were primer was not applied, the average dry thickness of the film reached 300 to 350 microns (12 to 14 mils).

The last section, just before the pumping to the other platform, the average thickness reached the 400 microns (16 mils).

Over the marks were the temperature are to be taken, the dry film thickness is much important that the average over the pipeline, the over-thickness is 200 microns at these points.

Pictures of Synavax Application

View of the final section before the work

Final section applying primer

Last trace of the pipeline before pumping.

Transition of the final section to the middle one with the work done

First section. Work done

First section during work.

Final aspect without primer. Middle section

Horizontal trace of first section at the beginning of work.

First section at last coat. See environment.

Aerial view of Platform AM6 of Sipetrol at MAGHELLAN ANOMALY

FECHA MEDICION	TEMPERATURA PUNTOS TESTIGO 1	2	3	4	5	6	7	OBSERVACIONES
31 Mayo 05	60.2C	60.6C	59.9C	59.2C	59.1C	60.8C	60.8C	Medicion Previa al comienzo de los trabajos
01 Junio 05	44.0C (140F)	41.3C (141F)	42.1C (140F)	37.8C (139F)	38.9C (138F)	46.4C (140F)	43.1C (140F)	Medicion hecha al finalizar los trabajos.
	(111F)	(106F)	(108F)	(100F)	(102F)	(116F)	(110F)	

NOTE: Temperatures were tested before cure time was complete