

RIL Industries- Armamastic for Higher Service Life

Background:

Reliance refinery at Jamnagar is the world's largest oil refinery. Intricate nature of refining process and handling of range of corrosive products coupled with closeness to sea makes the structures vulnerable to various degree of corrosion. The high performance coating system can act as a potential barrier against severe corrosion and help maintaining the structural integrity of structures.

Challenges :

There has been premature failure of coating systems at few corrosive units at RIL which led to frequent coating and additional expense at site. Such situation also have safety concerns as most of the structures are at greater heights and requires temporary access in form of scaffolding and other methods. The need was to design a coating system which can absorb the present anomalies and provide higher service life but without the need of abrasive blasting for Inside battery limit area.

Trial of Armamastic was carried out on power tooled cleaned surface at one of the most corroded structure at Coker unit . Comprehensive trial report was submitted to client upon completion of trial process. The installed coating system was evaluated for two years and found in perfect condition (without a single pin point rust) even after two years.

Solution :

Trial of Arma mastic surface tolerant high performance epoxy coating was carried out on power tooled cleaned surface at one of the most corroded structure at Coker unit . Comprehensive trial report was submitted to client upon completion of trial process. The installed coating system was evaluated for two years and found in perfect condition (without a single pin point rust) even after two years.

The design life of proposed coating was 07 Years on power tooled surface and 10 years on Blasted surface

Based on highly successful performance, Armamastic based coating system was approved by client and work order was awarded to certified contractor at coker unit. The scope for Armamastic has been further extended to other corrosive locations such as PP Pelting area , number of Tank roofs at MTF Area and more.

The system is also proposed for many other location where many other coating systems have underperformed or could only give limited service life.

Specification :

Location	Coating System	DFT (Microns)	Design Life
Highly Corrosive units at refinery	Armamastic	210	07 Years (with power tool)
	Armamastic	210	10 years (with Blasting)
	Armamastic	210	
	Acrylic polyurethane	50	

Out Come :

Armamastic coating system have been highly successful and demonstrated excellent protection against demanding corrosive environment. The scope for the product has been extended to many other location at different units of refinery upon successful performance at coker unit.

Other Suggested Areas :

Jetty Piles, jetty pipelines, splash zone, coker units, roof tank , tank lining, crude units and many others.