CASE STUDY



Tank Roof – Surface refresh & pressure containing repairs

Overview

The roof of a 14m diameter Ammonia Tank had experienced significant wall thinning due to external corrosion and coating breakdown. Technowrap[™] patches were applied in accordance with ISO 24817 to defect locations requiring pressure containment and the whole tank roof coating was refreshed. IC Integrity supplied a 4 man multi-skilled team able to perform "low dust" blasting surface preparation, coating and Technowrap[™] repairs.

Scope

The repair had the following specifications:

Structure	Tank Roof
Scope	Technowrap pressure containment repairs and protective coating refresh
Surface Preparation	Sa2.5
Technowrap™ Fibre	Carbon (triaxial) Glass (triaxial)
Design Pressure	0.14bar
Design Temperature	75 ^₀ ℃
Design Life	20 years
Wrap / Repair Length	500mm square patches
Number of Patches	18
Defect Diameter	50mm
Defect Type	Multiple through wall defects
Design Code	ISO 24817



Ammonia Tank Roof Repair



Technowrap[™] Roof Patch Repair

Solution

- Combination of Technowrap[™] fibre types used to deliver the pressure containment and structural requirements, minimizing material and labour costs
- A multi-skilled integrated site team to reduce costs
- SpongeJet[™] low dust dry abrasive blasting
- Over coated existing paint and Technowrap[™] repairs for continuous high performance coating system

Benefits

- Pressure containing patch repairs that do not corrode
- High QA/QC delivered through NACE 2 & 3 team
- · No hot work required to complete the repair
- No shut-down required, maintaining platform productivity
- 20 year Technowrap[™] patch repair warranty



Before and After Tank Roof Refresh

