



The mechanical structures in an Oil&Gas production or processing facility may have several critical points where maintaining the integrity (mechanical strength) is essential in a potential fire or explosion scenario.

The common practice in the industry is to cover the mechanical structure with a passive fire protection (PFP) coating. In the cases where wet application is difficult or costly to implement, the Benarx Structure Panel is an ideal solution with easy installation, low HSE impact and long life time result.

Benarx Structure Panel is prefabricated and the solution is ideal in cases where the structure or nodal point requires inspection possibilities.

Benarx Structure Panel

Jet fire tested and certified for up to 120 minutes

Custom design suitable for any area where wet application is not favourable

Solid construction thoroughly tested for explosion loads, ageing and static electricity

Low Life Cycle Cost, long life time, fast installation and easy removal for inspection

Proven track record in the toughest conditions from the cold harsh arctic to the warm tropic climate

Product overview

Design

Benarx Structure Panel is a high performance passive fire protection product designed for the demanding environment of Oil&Gas production or processing facilities. The product consists of a perforated stainless steel core enclosed by intumescent epoxy, waterproofing and protective paint. In a potential fire, the epoxy layer forms an insulating char when exposed to the heat. This mechanism in combination with the Benarx design, protects the structure elements from high temperatures in both hydrocarbon- and jet fire scenarios.

Installation and Inspection friendly

Benarx Structure Panel offers inspection friendly design compared to wet applied fire proofing. The universal design enables custom fit for any area and is delivered as flat panels, shells for round beams or custom designed geometry for nodal points. The prefabricated solution enables fast installation, fastened to the structure using quick release locks, stainless steel bands or screws/rivets to mounting profiles. The dry fit nature of the product offers a low HSE impact and removes the environmental limitation associated with wet applied PFP such as temperature restrictions or precipitation.

Solid construction

Benarx Structure Panel has a proven track record of its solid construction through several projects worldwide. The panel withstands heavy mechanical impact and maintains the mechanical integrity on the system through its life cycle



Benarx Product performance and properties

| Property | Method | Value |
|---|---|-------------------------|
| Maintain stability and integrity of equipment in a jet fire caused by high pressure natural gas | ISO 22899-1 increased - 350 kW/m ² | 120 minutes |
| | ISO 22899-1 - 250 kW/m ² | 119,3 minutes |
| Ability to withstand heavy explosion loads | Gas explosion test | 1,2 bar |
| Age simulation performance test | ISO 20340 | 4200 hours exposure |
| Approved for use in all hazardous gas groups | EN 13463-1 Annex C | No electrical discharge |