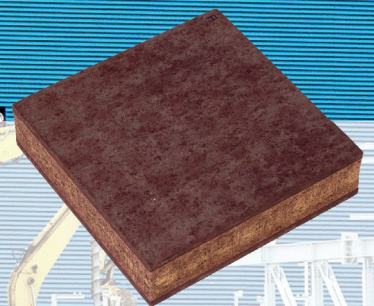




HUTCHINSON®



ZALTEX



CRYOGENIC & PASSIVE FIRE  
PROTECTION

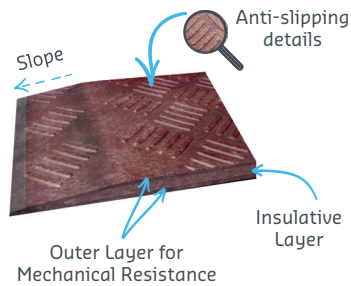
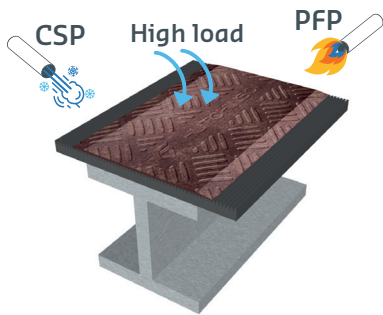


## A CSP & PFP PANEL SOLUTION

Hutchinson experts have developed a composite material for Cryogenic Spillage and Passive Fire Protection against accidental LNG spills, to better prevent risks surrounding LNG hazards. Zaltex® has obtained approvals by Total Energies and EPCs for CSP.

### LOW THICKNESS & DENSITY

Zaltex is a patented thermal protection made of composite foam, reinforced with Basalt fibers. It is resistant to cryogenic shock CSP & fire PFP. Zaltex panels are a new solution for cryogenic spillage protection and an alternative to epoxy coatings to protect specific areas on LNG modules (steel plating, grating...). They offer an exceptional ratio between insulation, mechanical resistance, and weight. Zaltex allows quick and easy installation, inspection and maintenance under any weather conditions.



Development of a specific design for each application. Design example for two hours CSP resistance with low thickness 3+9+3 (15mm) - density (700kg/m<sup>3</sup>)

### BENEFITS

2 hours  
Passive Fire  
Protection

2 hours  
Cryogenic Spillage  
Protection

Robust & light  
mechanical  
properties

Easy & quick  
installation  
No specific tools

### TECHNICAL PROPERTIES

3 layers | 3+9+3 mm | density 700kg/m<sup>3</sup> | Thermal conductivity 0.08 W/(m.K)

PROPERTIES [MPa]	STANDARD	T° TEST BEFORE AGEING		T° TEST AFTER 6 MONTHS SEA WATER
	/	23°C	-170°C	23°C
Flexural modulus	ISO 14125	2700	5000	3000
Bending stress at break	ISO 14125	29	30	31
Compression stress at break	ASTM D695	>10	>10	>10

3 layers | 3+15+3 mm\* | density 500kg/m<sup>3</sup> | Thermal conductivity 0.06 W/(m.K)

FIRE & CRYOGENIC PROPERTIES	STANDARD	BACKFACE TEMPERATURES [°C]	
	/	After 1 hour	After 2 hours
Cryogenic spillage	ISO 20088-1	-8	-25
Jet release	ISO 20088-3	-45	-67
Jet fire	ISO 22899-1	336	349
Pool fire	UL 1709	427	

\* Available in different thickness (3 to 30 mm) and densities (200 to 1200 kg/m<sup>3</sup>)