

Conductive Fiber Composites Anti-ice technology

De-icing or Anti-icing?





Skidding is a safety issue





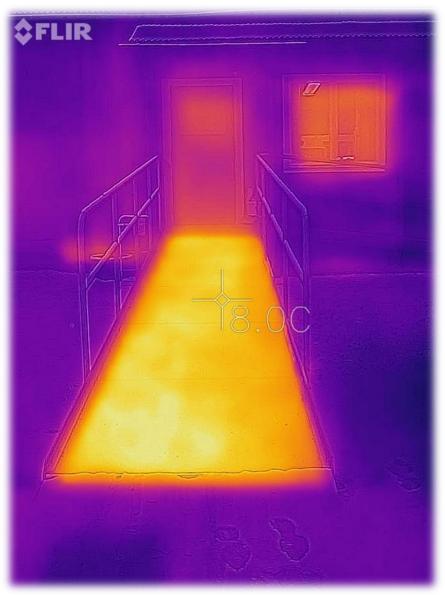


Confistep is BPAB's solution for anti-icing of boot surfaces onshore and offshore

- Confistep/Conficomp Conductive Fiber Composites
- <u>Only the surface</u> is heated and only when needed minimizing energy dissipation.
- Appr. 3 mins response time vs "hours" by heating cables.
- Anti skidding also in stand by mode
- Maintenance free, protecting steel from corrosion
- Fairly easy/cheap installation
- Low weight solution









Access ramp onboard Stena Danica





Anti icing means of (marine deck) heat tracing

Conficomp	• Confistep/tiles	
technology	Confistep/Flowcrete	PROS
Heating Cables	Embedded in concrete	
	• Beneath steel	ο
Hot water	• Piping systems	&
Heating fans	 Hot air. Suitable for smaller 	CONS
	areas/cavities	



Pros & Cons: means of (marine deck) heat tracing

	Energy consumption	Installation	Weight	Deck protection	Anti skid	Area coverage
Conficomp	Low	Easy	Max 15 kg/sqm	High	Yes	High
Heating cables	High	Complex	Min 20 kg/sqm	None	No	Moderate
Hot water	Low?	Complex	Moderate?	None	No	Low
Hot fans	High	Easy?	Low	None	No	Low



Flowcrete deckshield

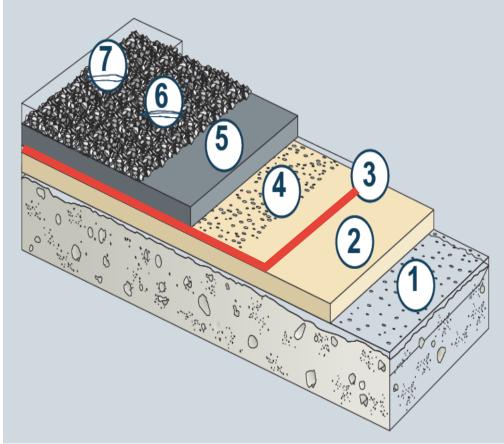


- Seamless, waterproof wearing protection for steel decks
- > Appr 8 mm thick (thin) and 15 kg/sqm (incl Conficomp)
- Non absorbent and impermeable
- Rapid setting and curing
- Tenacious bond to concrete and steel surfaces
- Resilient and resists indentation by ballast
- Crack bridging even at below sub zero temperatures
- Easily repaired where applicable
- Superior wear resistance



Flowcrete deckshield with Conficomp inside

Conficomp® with MATACRYL® WS



LAYERS:

1. Matacryl® Primer / natural quartz
2. Matacryl® Manual / Machine Membrane
3. Conficomp Conductive Layer
4. Matacryl® Primer + natural quartz
5. Matacryl® WL or WLV Wearing Layer
6. Aggregate, Bauxite / Aluminium Oxide
7. Matacryl® STC Sealer



