

Beyond Compliance: Arctic 10+ – Engineered for Polar Survival

Setting the Benchmark for Cold Water Safety

Executive Summary

Cold-water survival is not a matter of compliance—it is a matter of life. Current international standards, including the Polar Code, establish minimum requirements for immersion suits, but these standards assume rapid rescue and fail to address prolonged exposure in extreme environments. In reality, rescue can take hours or even days, especially in remote polar regions or during severe weather. The Arctic 10+ survival suit was engineered to close this critical



gap. Designed for up to five days of survival in freezing water, it combines advanced insulation (CLO 4.87), integrated buoyancy, and unique features such as the Splash Tent for hands-free protection against wind and waves. Unlike conventional immersion suits, Arctic 10+ transforms an emergency into a controlled survival scenario. This white paper explains why minimum compliance is not enough, outlines the engineering behind Arctic 10+, and demonstrates its proven performance through real-world deployments and rigorous testing. For operators, regulators, and safety managers, Arctic 10+ sets the benchmark for true cold-water survival—beyond compliance, beyond limits.

Introduction

Every year, maritime incidents in cold waters claim lives—not because crews lacked immersion suits, but because those suits were designed for short-term survival. Hypothermia can set in within minutes, and even with rescue plans in place, delays are common in polar regions where harsh conditions and vast distances complicate response efforts. International regulations such as the Polar Code mandate immersion suits for vessels operating in polar waters. However, these standards focus on compliance rather than real-world survivability. Most suits meet the minimum requirement of keeping a person afloat and delaying hypothermia for a few hours. But what happens when rescue takes 24 hours, 48 hours, or longer? The Arctic 10+ survival suit was created to answer that question. Engineered for the most extreme conditions, it provides insulation,

buoyancy, and environmental protection that far exceed regulatory minimums. With integrated features like the Splash Tent and a CLO rating of 4.87, Arctic 10+ offers a survival time measured in days, not hours.

3. Engineering for Survival

Arctic 10+ is a complete survival system designed for worst-case scenarios. Key highlights:

Advanced Insulation: CLO 4.87, multi-layer reflective bubble technology.

Splash Tent: Hands-free protection against wind and waves.

Buoyancy: 33 lbs + trapped air for stability.

Mobility: Clothing-like fit, integrated suspenders, quick donning.

Survival Time: Up to 5 days in freezing water, validated by extreme cold-water testing.



4. Real-World Validation

Arctic 10+ is deployed on Ponant's Le Commandant Charcot, approved by multiple flag states, and tested in extreme cold-water conditions. Certifications include SOLAS, MED, USCG, and Transport Canada. Survival time exceeds 14 hours baseline and up to 5 days with integrated features.

5. Why Minimum Isn't Enough

Compliance assumes rapid rescue, but polar reality means delays of 24–72 hours or more. Minimum suits offer hours of protection; Arctic 10+ offers days. The cost of failure includes human life, liability, and reputation. Arctic 10+ is risk mitigation and operational assurance.

6. Universal Application

Beyond polar regions, Arctic 10+ protects crews in any cold-water environment: North Atlantic, Baltic, offshore energy, defense fleets, and expedition cruises. It is a universal solution for survival where compliance alone is not enough.

7. Conclusion

Minimum compliance means minimum protection. Arctic 10+ means maximum survival. Request a technical briefing or live demonstration today and discover why Arctic 10+ sets the benchmark for cold-water survival—beyond compliance, beyond limits.

Comparison: Arctic 10+ vs Standard Immersion Suit

Metric	Arctic 10+	Standard Immersion Suit
Survival Time	Up to 5 days	6–8 hours
CLO Value	4.87	1.5–2.0
Buoyancy	33 lbs + trapped air	Basic buoyancy only
Features	Splash Tent, Hands-Free, Mobility	Rigid design, limited mobility
Compliance	SOLAS, MED, USCG, Transport Canada	SOLAS minimum compliance

Specification	Arctic 10+
CLO Value	4.87
Survival Time	Up to 5 days in freezing water
Buoyancy	33 lbs + trapped air
Weight	Approx. 15 lbs (6.8 kg)
Material	Multi-layer reflective bubble insulation with durable outer shell
Certifications	SOLAS, MED, USCG, Transport Canada
Key Features	Splash Tent, Hands-Free, Mobility, Integrated Suspenders
Dimensions	Universal adult size with adjustable fit

