



TECHNICAL CIRCULAR No. 279 of 05th July 2015

To:	All Surveyors/Auditors
Applicable to flag:	All Flags
Subject:	Immersion Suit Adds
Reference:	SOLAS Ch. III

**Immersion Suit Adds 19+ Hours Survival Time**

Hypothermia is a major cause of death at sea, resulting in about 800 casualties annually, most of which are reported as drowning.

With the increase of trading routes in Arctic territories, this number could unfortunately increase, There is a range of immersion suits that he claims adds at least 19 hours to the IMO stipulated six hours survival time requirement.

Cold water immersion suits have become an important safety component on board commercial vessels and offshore platforms, protecting accident victims from open flames, high impact jumps, hypothermia and drowning.

SOLAS requires cold water immersion suits to meet numerous minimum requirements for safety and performance including:

- No more than two-minute donning time;
- Impact protection up to 4.5 meters;
- Hypothermia protection up to six hours; and
- Flame resistance up to two seconds.

The Polar Code is mandating that immersion suits are available for cruise passengers as well as crew. Other suits on the market might not provide prolonged protection. In the Arctic, in the case of an accident, it is very likely that the helicopter will take more than six hours to reach you.

Most suits are made of neoprene, but neoprene is limited in its ability to protect against hypothermia.

The White Glacier suits have a three layered, non-neoprene construction. The innermost layer is a microfiber fabric that contains air to protect against the cold. The next layer is a bubble-like film that provides water proofing and the outer nylon layer is abrasion resistant and fire retardant.

The basic suit, the Arctic 25, is flame resistant for four seconds, and the more advanced suit, Fire and Ice, for 10.

White Glacier's immersion suits can be fully donned in under one minute or partially donned in 15 seconds. Donning can then be completed once in the water. All suits will withstand ten-meter jump impacts, more than twice the industry standard. If victims are soaking wet or water gets into the suit

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during donning or while escaping, each suit will restore core body temperature within ten minutes. The suits have heavy duty, pre-lubricated zippers, eliminating the need for routine maintenance and ensuring proper function at all times. A retractable cabin provides heightened protection against high wind, waves and freezing water when engaged. Suits are also equipped with a built-in harness to aid in fast evacuation and will float horizontally or vertically for optimal visibility from sky or sea rescue. The use of immersion suits is not just limited to polar waters, and the ability to open the suits from within and expose the wearer's arms can be an advantage in hotter weather. The only way to cool off in a neoprene suit is to flush the suit with water. This can be dangerous as the wearer is likely to remain wet at night time and could get cold. With the White Glacier suits, the wearer can just wet their arms to cool off.

REFERENCES:

- SOLAS Ch. III

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Kindest Regards,  
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