International

Intershield® 163 Inerta 160

Abrasion resistant low friction ice coating

Product Description

A high solids, low VOC, two pack epoxy abrasion resistant coating especially designed for ice-going vessels. The ultimate coating for vessels trading in ice. Low ice adhesion, low frictional resistance. For use at Newbuilding and Maintenance & Repair.

Features	Benefits
Smooth surface	Assists ice slip Resists ice adhesion to coated surface
Low frictional resistance	Control of fuel costs and operational efficiency
Abrasion resistance	2.5 times the impact and erosion resistance of standard epoxies Controls mechanical damage and hull roughness, saving on future maintenence and repair costs
Designed for operation in temperatures down to -50ºC (-58ºF)	Allows operation in the harshest of ice conditions
Class recognised as an abrasion resistant ice coating	Reduction in the steel plate thickness is allowable
Low VOC (40g/lt EPA Method 24, 30g/kg EU Solvent Emissions Directive)	Control of solvent emissions

Product Information

Colour	ERA163 Black, ERA174 CGuard Red Plus limited colour range
Surface preparation	All surfaces to be coated should be clean, dry and free from contamination.
Volume solids	95% ±2% (ISO 3233:1998)
Typical film thickness	500 microns
Hard dry	48 hours @ 25ºC
Minimum application temperature	10ºC
Method of application	Hot twin feed airless Spray

For each of our products the relevant Product Data Sheet, Material Safety Data Sheet and package labelling comprise an integral information system about the product in question. Copies of our Product Data Sheets and Material Safety Data Sheets are available on request or from our website.

In Service Performance

'Urho' after 60 months in service

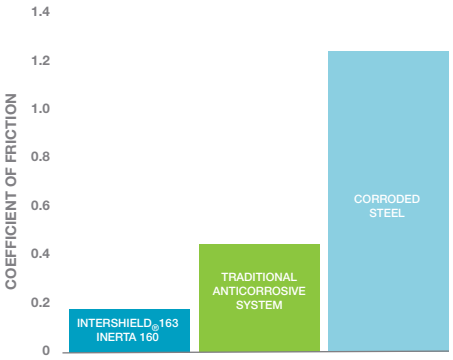
'Silja Serenaden' after 24 months in service

Ultimate performance in the harshest of environments

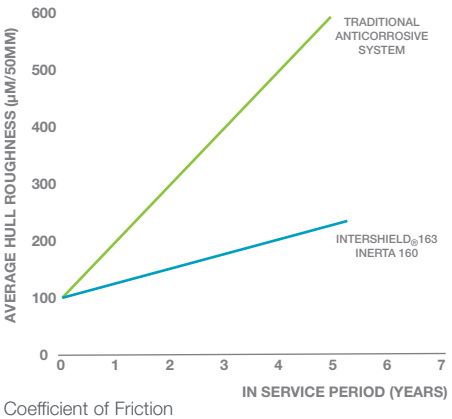
AkzoNobel

Intershield®163 Inerta 160

Average Hull Roughness and Coefficient of Friction



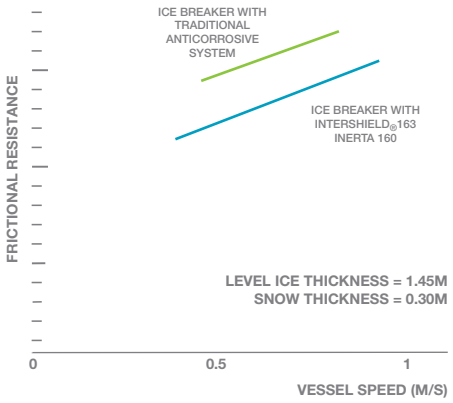
Average Hull Roughness



Coefficient of Friction

Increasing hull roughness has a significant effect on the efficiency of a vessel moving through water and ice. Intershield®163 Inerta 160 protects the hull, keeps the average hull roughness down and coefficient of friction low.

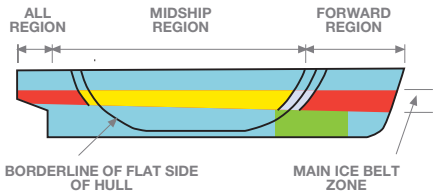
Low Frictional Resistance and Fuel Savings



Measured ice resistance of two ice breakers of the same type. One vessel coated with a traditional anticorrosive and one vessel coated with Intershield®163 Inerta 160.

The abrasion resistance and low frictional resistance of Intershield®163 Inerta 160 has a beneficial effect on reducing vessel power consumption and therefore fuel consumption. Research has shown that it is possible to achieve an annual fuel saving of 7 to 10% when compared to a traditional anticorrosive system.

Optimum Protection

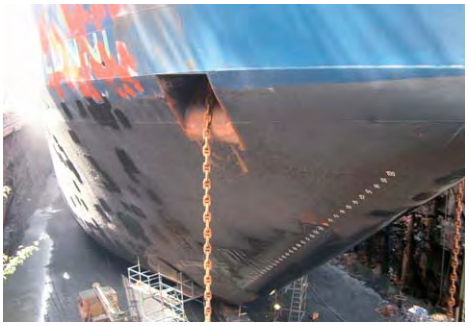


The ice belt region of a vessel is well defined by the class societies and is not necessarily a region of uniform dimensions. This diagram shows the ice belt for a vessel trading in first year ice.

Whilst ice class vessels trading in first year ice do not require complete coating of the underwater hull they should as a minimum be coated in the 'ice-belt' region. Intershield®163 Inerta 160 is specially formulated to withstand ice impact and abrasion.

In Service Performance

A typical standard epoxy damaged by ice - severe corrosion and very rough hull



Intershield®163 Inerta 160 – typical condition after exposure to ice, minimal damage, smooth hull

Resistant to ice adhesion, less power required for propulsion through ice

Ultimate performance in the harshest of conditions

To find out more visit: www.international-marine.com

International Paint Ltd, Stoneygate Lane, Felling, Gateshead NE10 0JY. Tel: +44 (0)191 469 6111 Fax: +44 (0)191 495 2003

May 2009