

ULTIMATE U SeaProtect range



New product name structure:

Because it is so important to be able to find a product needed quickly and in a simple way.

ULTIMATE	Product range	Product Form	Density (kg/m ³)	Facing	Thickness (mm)
U	SeaProtect	Roll	24	Alu1 → unfaced G120 → Aluminium G220 → Glass cloth (black) G420 → Glass cloth (white) B-Al → B Facing ¹⁾ (Alu outside) B-Gl → B Facing ¹⁾ (Glass cloth outside)	20 mm
			36		25 mm
		Slab	56		30 mm
			76		40 mm
		Wired Mat	86		50 mm
			90		70 mm
...	100 mm				

Fire protection solutions for Steel constructions following FTP Code 2010

Standard Design 					
Lightweight and Easy Logistics 4 products to cover all Steel A-Fire Classifications, it is all what it takes.					
STEEL	Plate		Stiffener		Complete solution
	Products ²⁾	Weight [kg/m ²]	Products ²⁾	Weight [kg/m ²]	Weight [kg/m ²] ³⁾
A-15 Bulkhead	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	1,20	U SeaProtect Slab 76 25mm U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	1,90 1,20	2,53 2,04
A-30 Bulkhead A-60 Bulkhead Restricted	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	2,52	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm U SeaProtect Slab 76 25mm	2,52 1,90	4,28 3,85
A-60 Bulkhead	U SeaProtect Slab 56 70mm	3,92	U SeaProtect Slab 76 25mm	1,90	5,25
A-15 Deck A-30 Deck	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	1,20	U SeaProtect Slab 76 25mm U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	1,90 1,20	2,53 2,04
A-60 Deck	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	2,52	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm U SeaProtect Slab 76 25mm	2,52 1,90	4,28 3,85

Thin Design 					
Thin Solutions between and around the stiffeners.					
STEEL	Plate		Stiffener		Complete solution
	Products ²⁾	Weight [kg/m ²]	Products ²⁾	Weight [kg/m ²]	Weight [kg/m ²] ³⁾
A-15 Bulkhead	U SeaProtect Slab 66 30mm	1,98	no insulation around stiffeners	/	1,98
A-30 Bulkhead Restricted	U SeaProtect Slab 46 40mm	1,84	U SeaProtect Slab 46 30mm or U SeaProtect Slab 46 40mm	1,38	2,81
A-30 Bulkhead	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	2,52	U SeaProtect Slab 76 20mm	1,52	3,58
	U SeaProtect Slab 76 40mm or U SeaProtect Slab 76 20mmX2	3,04	U SeaProtect Slab 76 20mm or U SeaProtect Slab 76 25mm	1,52 1,90	4,10 4,37
A-60 Bulkhead	U SeaProtect Slab 86 50mm	4,30	U SeaProtect Slab 76 25mm	1,90	5,63
A-15 Deck	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	2,52	no insulation around stiffeners	–	2,52
A-15 Deck A-30 Deck	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	1,20	U SeaProtect Slab 76 20mm	1,52	2,26
	U SeaProtect Slab 76 25mm	1,90	U SeaProtect Slab 76 20mm or U SeaProtect Slab 76 25mm	1,52 1,90	2,96 3,23
A-60 Deck	U SeaProtect Slab 66 50mm	3,30	U SeaProtect Slab 76 25mm	1,90	4,63

Products highlighted in colors are part of the ISOVER U SeaProtect Easy Logistics Portfolio. These products are available with a low Minimum Order Quantity (equivalent to 1 pallet) for various facings. For more information, please contact your local ISOVER representative.

- 1) B Facing is a laminated composite facing combining Glass cloth and Aluminum foil.
- 2) All U SeaProtect products are available for each construction with different facings approved by a recognized test laboratory (Alu facing Alu1, Glass cloth facings G120,G220,G420, B facing, etc.).
- 3) Estimation of the weight for the complete solution is based on the surface ratio traditionally used in Marine industry of 1 for the plate part and 0,7 for the stiffeners.

ULTIMATE U SeaProtect Steel constructions

Snapshot of all possible combinations

Various thicknesses possible between and around the stiffeners, because space is so important on a ship and it is good to have a choice.



Steel Constructions FTP Code 2010		Stiffener ²⁾			
A- Fire Class	Plate ²⁾	U SeaProtect Slab 76 25mm	U SeaProtect Slab 76 20mm	U SeaProtect Slab 56 30mm	Other Possibilities
A-60 Bulkhead	U SeaProtect Slab 56 70mm	●	●	●	
	U SeaProtect Slab 86 50mm				
A-60 Bulkhead (Double Sided)	U SeaProtect Slab 46 30mm on each side				U SeaProtect Slab 46 30mm X1 (on the stiffener side)
A-60 Bulkhead Restricted	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	●			U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm
A-30 Bulkhead	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	●	●	●	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm
	U SeaProtect Slab 76 40mm or U SeaProtect Slab 76 20mmX2	●	●		
A-30 Bulkhead Restricted	U SeaProtect Slab 46 40mm				U SeaProtect Slab 46 30mm or U SeaProtect Slab 46 40mm
A-15 Bulkhead	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	●	●	●	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm
	U SeaProtect Slab 66 30mm				no insulation around the stiffeners
A-60 Deck	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	●			U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm
	U SeaProtect Slab 66 50mm				
A-30 Deck A-15 Deck	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	●	●	●	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm
	U SeaProtect Slab 76 25mm	●	●		
A-15 Deck	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm				no insulation around the stiffeners

+ To achieve higher Thermal and Acoustical performance, possibility to install a 2nd Layer of 24kg/m³ 50mm on the plate (Best Comfort Class solutions) or to increase density or thickness of our solutions according to our certificates.

ULTIMATE U SeaProtect Steel constructions and Best Comfort Class solutions

Excellent Thermal Insulation, Excellent Acoustical Performance



Steel Constructions FTP Code 2010				Best Comfort Class solutions				Fire certification
Stiffener ¹⁾	Plate ¹⁾	Sound Reduction ²⁾ Rw (C,Ctr) [dB]	U-Value ³⁾ [W/m ² .K]	+ 2nd Layer on the Plate (Optional)	Total Thickness on the plate [mm]	Sound Reduction ²⁾ Rw (C,Ctr) [dB]	U-Value ³⁾ [W/m ² .K]	
no insulation around the stiffeners	U SeaProtect Slab 66 30mm	45(-1;-5)	2,065					A-15 Bulkhead
	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	47(-1;-6)	1,475					A-15 Deck
U SeaProtect Slab 76 25mm	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm	47(-2;-6)	0,819	U SeaProtect Slab 24 50mm or U SeaProtect Roll 24 50mm (2 nd layer on top)	100mm	49(-2;-6)	0,506	A-15 Bulkhead A-15 Deck A-30 Deck
	U SeaProtect Slab 36 70mm or U SeaProtect Roll 36 70mm	48(-1;-6)	0,645		120mm	50(-2;-7)	0,429	A-30 Bulkhead A-60 Bulkhead Restricted A-60 Deck
or	U SeaProtect Slab 56 70mm	49(-2;-7)	0,636		120mm	51(-3;-8)	0,425	A-60 Bulkhead
U SeaProtect Slab 56 30mm	U SeaProtect Slab 66 50mm	48(-2;-7)	0,785		100mm	50(-3;-8)	0,496	A-60 Deck (Thin Design)
or	U SeaProtect Slab 76 25mm	45(-1;-5)	1,154		75mm	48(-2;-6)	0,624	A-15 Deck (Thin Design) A-30 Deck (Thin Design)
U SeaProtect Slab 76 20mm (for A-30 constructions)	U SeaProtect Slab 76 40mm	47(-2;-6)	0,893		90mm	-	0,543	A-30 Bulkhead (Thin Design)
	U SeaProtect Slab 86 50mm	48(-2;-7)	0,785		100mm	50(-2;-8)	0,496	A-60 Bulkhead (Thin Design)

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- 1) All U SeaProtect products are available for each construction with different facings approved by a recognized test laboratory
- 2) Various types of facings do not influence Sound Reduction performance; measurement shows that variation of thickness around the stiffeners between 20mm and 30mm has a limited influence on the measurement of sound reduction level.
- 3) All U-values have been calculated with U SeaProtect Slab 76 25 mm around the stiffeners (76kg/m³ 25 mm products)