## TECHNICAL FACTS

| Alloy | Temper | Tensile strength **Rm** - minimum or range (MPa) | Yield strength **R0.2** - minimum or range (MPa) | Elongation **A50** (%) | Thickness range[2] (mm) | **Maximum width** (mm) |
|---|---|---|---|---|---|---|
| **SEALIUM®** (5383-based) | H116[1] | 330 | 230 | 10 | 3 to 50 | 2500 ( thickness up to 12.7mm)<br>3050 (thickness 12.7-50mm) |
| 5083 | O/H111 | 245 – 350 | 90 – 125 | 9 – 16 | 3 to 300 | 2500 (thickness up to 12.7mm)<br>3050 (thickness 12.7-300 mm) |
| | H112 | 260 to 275 | 110 – 125 | 10 – 12 | 6 to 120 | |
| | H116/H321 | 285 – 305 | 200 – 215 | 8 – 12 | 3 to 80 | |
| 5086 | O/H111 | 240 – 310 | 100 | 15 – 17 | 3 to 150 | 2500 (thickness up to 12.7mm)<br>3050 (thickness 12.7-50mm) |
| | H112 | 240 – 250 | 105 | 8 – 9 | 6 to 40 | |
| | H116/H321 | 275 | 195 | 9 – 10 | 3 to 50 | |
| 5383 | O/H111 | 285 – 360 | 145 | 11 – 16 | 3 to 150 | 2500 (thickness up to 12.7mm)<br>3050 (thickness 12.7-50mm) |
| | H112 | 285 – 290 | 135 – 145 | 10 – 12 | 6 to 80 | |

[1] Equivalent characteristic to H321

[2] Availability depends on the temper and the certification agency. Contact us for exact dimensions.
Higher dimensions may be available in similar grades.

### CERTIFICATION

The following regulatory offices are involved in the certification of our Marine solution.
Contact us to check appropriate certification for each product.

- American Bureau of Shipping (ABS)
- Bureau Veritas (BV)
- Det Norske Veritas (DNV)
- Germanischer Lloyd
- Korean Register of shipping (KR)
- Lloyd's Register (LR)
- Nippon Kaiji Kyokai (ClassNK)
- Registro Italiano (RINA)

Constellium





TRANSPORTATION

# MARINE

Durable performance for the oceans.

Constellium

# Constellium's aluminium products represent the most sustainable design solutions for our oceans

## THE MARINE PRODUCT RANGE

Constellium has developed a dedicated range of products for Marine design and construction. These products have been selected for their suitability to the specificities of marine design. Depending on the application, a number of conventionnal products are available, as well as our specialized marine solution **Sealium®** which maximizes benefits.

5083 | 5086 | 5383 | SEALIUM®

## THE PERFECT FIT FOR THE SEA

Our aluminium solutions feature a combination of properties that perfectly fit to the design and production requirements of the marine industry.

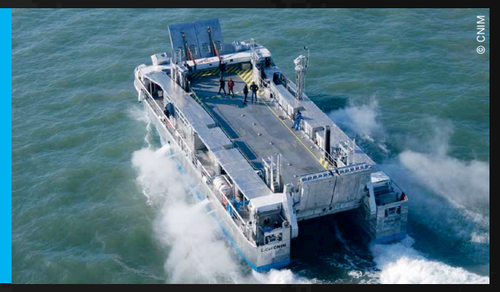
- Low density
- Corrosion resistance
- Higher fatigue resistance
- Recyclability
- Weldability
- Formability

## Benefits for the vessels

- Higher speed
- Fuel economy
- Durability
- Safety
- Eco-friendly lifecycle

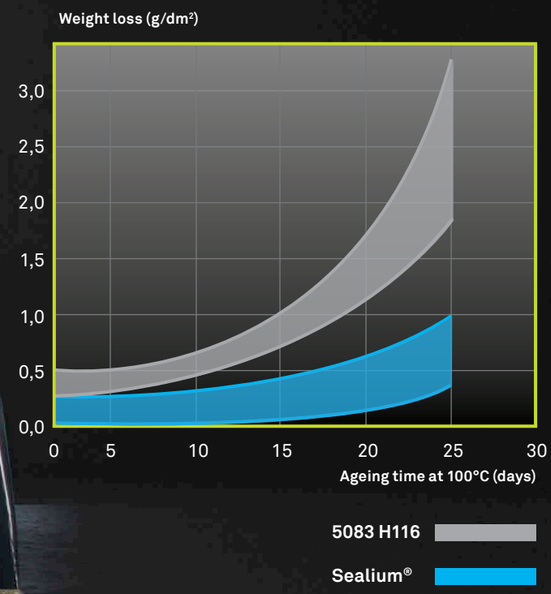
## **Sealium®**, the specialized Marine solution for faster and long-lasting ships.

Developed by our Global R&D Center, **Sealium®** is a 5383-based alloy that enables you to take the design optimization to another level. The additional weight savings will result in pure performance and higher economic efficiency on the seas. **Sealium®** also incorporates superior resistance to corrosion that will result in a longer operating life for vessels.




### ENHANCED CORROSION RESISTANCE

**Sealium®** is protected by a thick layer of aluminium oxide which provides a superior corrosion resistance than other aluminium alloys and to a larger extent steel (which requires priming and expensive maintenance).




### OUTSTANDING RESISTANCE OF WELDED ASSEMBLIES

Beyond the weight savings that our standard aluminium products offer, **Sealium®** has a leading edge on strength of welded joints, with an advantage ranging between 15% and 45%.