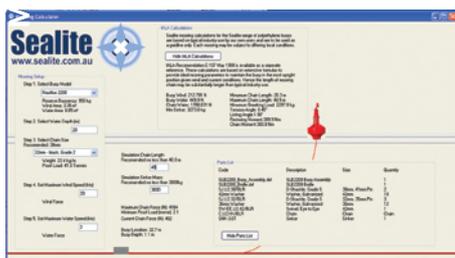


Ask us how we can supply your complete mooring solution.



Sealite can provide turn-key mooring solutions for the range of buoy products, enabling complete systems to be containerised and delivered to customer sites around the world.

As a service to valued customers, Sealite has developed an advanced mooring calculator based on IALA guidelines and experience from major users.

Known as SeaMoor™, this facility is available free of charge by contacting Sealite.

The system simulates site mooring based on the following easy steps;

#### Step 1. Select Buoy Model

Customers select which Sealite buoy they're planning to use in their installation.

#### Step 2. Select Water Depth

Customers select the water depth of their proposed installation.

#### Step 3. Confirm Recommended Chain Size

The calculator will recommend a chain size at this point, which the customer can confirm or choose a larger or smaller size. The calculator will perform simulations based on this data.

#### Step 4. Set Maximum Wind Speed

Users enter the likely maximum wind speed. Wind speed will affect the buoy performance in different ways, depending on the exposed wind area of the navaid.

#### Step 5. Set Maximum Current

Customers enter the maximum water speed, which will affect both the buoy and chain.

#### Step 6. Simulate Chain Length

The calculator will recommend a chain length at this point, based on the available information entered. Customers can adhere to this information, or select their own length. The calculator will perform simulations based on this data.

#### Step 7. Simulate Sinker Mass

The calculator will recommend a sinker mass, based on the available information entered. Customers can adhere to this information, or select their own mass. The calculator will perform simulations based on this data.

The calculator will then simulate navaid mooring using all of this available data, and produce a parts list of required components.

## The Sealite Advantage

- Complete range of mooring chain & accessories to compliment Sealite buoy products
- IALA recommended mooring solutions calculated with Sealite advanced SeaMoor™ mooring calculator
- Flexibility in manufacture to meet various installation requirements & local conditions
- One-stop for all marine AtoN equipment



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## Sealite Mooring Calculator

Select buoy type and installation parameters to view mooring simulation

Buoy Location indicates an approximate watch circle given the mooring chain length and total water depth

Buoy Depth indicates how deep the buoy will float in the water (draft)

**Mooring Setup**

Step 1. Select Buoy Model  
Nauticus 2200  
Reserve Buoyancy: 950 kg  
Wind Area: 3.25 m²  
Water Area: 0.95 m²

Step 2. Select Water Depth (m)  
20

Step 3. Select Chain Size  
Recommended 38mm  
30mm - block, Grade 2  
Weight: 22.4 kg/m  
Proof Load: 41.9 Tonnes

Step 4. Set Maximum Wind Speed (kts)  
20  
Wind Force

Step 5. Set Maximum Water Speed (kts)  
2  
Water Force

**IALA Calculations**  
Sealite mooring calculations for the Sealite range of polyethylene buoys are based on typical industry use by our own users and are to be used as a guideline only. Each mooring may be subject to differing local conditions.

Hide IALA Calculations

IALA Recommendation E.107 May 1968 is available as a separate reference. These calculations are based on extensive formulas to provide ideal mooring parameters to maintain the buoy in the most upright position given wind and current conditions. Hence the length of mooring chain may be substantially longer than typical industry use.

Buoy Wind: 212,791 N  
Buoy Water: 449.9 N  
Chain Water: 1788.631 N  
Min Sinker: 3273.0 kg

Minimum Chain Length: 20.3 m  
Maximum Chain Length: 48.5 m  
Minimum Breaking Load: 2287.8 kg  
Tension Angle: 8.45°  
Listing Angle: 1.9°  
Resting Moment: 389.9 Nm  
Chain Moment: 369.8 Nm

**Simulation**  
Simulation Chain Length: Recommended no less than 40.0 m  
49  
Simulation Sinker Mass: Recommended no less than 3600kg  
3600  
Maximum Chain Force (N): 4184  
Minimum Proof Load (Tonnes): 2.1  
Current Chain Force (N): 497  
Buoy Location: 32.7 m  
Buoy Depth: 1.1 m

Code	Description	Size	Quantity
SLB2200	Buoy Assembly/d	SLB2200 Buoy Assembly	1
SLB2200	Buoy/d	SLB2200 Buoy	1
SJL2 20/BLR	D-Shectic, Grade 5	38mm, 41mm Pin	2
42mm Washer	Washer, Galvanized	42mm	10
SJL2 20/BLR	D-Shectic, Grade 5	38mm, 35mm Pin	3
38mm Washer	Washer, Galvanized	38mm	12
SW/EE/L2/42/BLR	Swivel, Eye to Eye	42mm	1
C/L2/20/BLR	Chain	Chain	1
SINK	Sinker	Sinker	1

By changing the various mooring parameters (eg. chain length) users can visualise the effect on the installation

Shows a list of recommended parts for mooring Sealite's buoy

Users can check that the Proof Load listed in Step 3 is greater than the Minimum Proof Load. Heavier chain may be required to ensure this



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