

Synthetic Mooring Solutions

Nylon Mooring Lines

Sealite's synthetic mooring solutions provide a lightweight and environmentally sensitive alternative to traditional mooring chain and are ideal for many marine mooring applications. Unlike chain, the synthetic mooring solution minimises damage to the sea bed whilst the smooth stretch of the unique nylon core absorbs shock loads in the wave and tidal conditions of the marine environment. These unique mooring solutions are a perfect complement to Sealite's complete range of mooring and navigation buoys and can be used in many applications as a chain replacement.



Heavy duty construction

The mooring line incorporates load bearing nylon fibres laid in an endless, parallel lay construction into galvanised wire rope thimbles or high performance stainless steel thimbles.

The entire construction is covered in a vulcanised industrial rubber that protects the nylon core and thimbles from corrosion in salt and fresh water. The unique design of the embedded thimbles eliminate fraying of the nylon fibres, whilst the abrasion and cut resistant rubber is UV stabilised and salt water resistant allowing it to be virtually maintenance free for years.

Lightweight design

The use of nylon and rubber materials makes the mooring line very flexible and lightweight whilst maintaining break strains consistent with traditional chain. The lightweight solution means handling, installation and servicing is made easier with a reduction in heavy lifting and deployment equipment.

For synthetic moorings of 20 tonne to 100 tonne break strength, choke points (couplers) are completely integrated into the mooring to assist in lifting and retrieval. On 20 tonne to 100 tonne break strength synthetic moorings these choke points are added on lengths 7 metres and over.

The synthetic mooring line can be lifted when using a round sling via the shackle in the eye if there is space, or round sling choked at the eye for first lift, then choked on the join for the second and third lift and subsequent lifts.

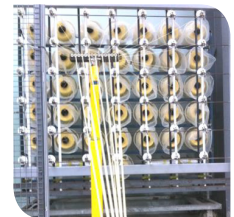
Tailored to suit various requirements

The Sealite synthetic mooring line is a high performance solution, best suited for marine conditions and environments.

With over 50 different types available, the Sealite synthetic mooring solution has carved a strong place in the market and is perfect for use in rivers, lakes, estuaries, harbours, bays and oceans. Single lengths range from 300mm to standard 20 metres along with the option of joining multiple lengths to suit any application. Break strengths range from 4 tonne through to 100 tonne.



Load bearing fibres protected by thick, black rubber skin

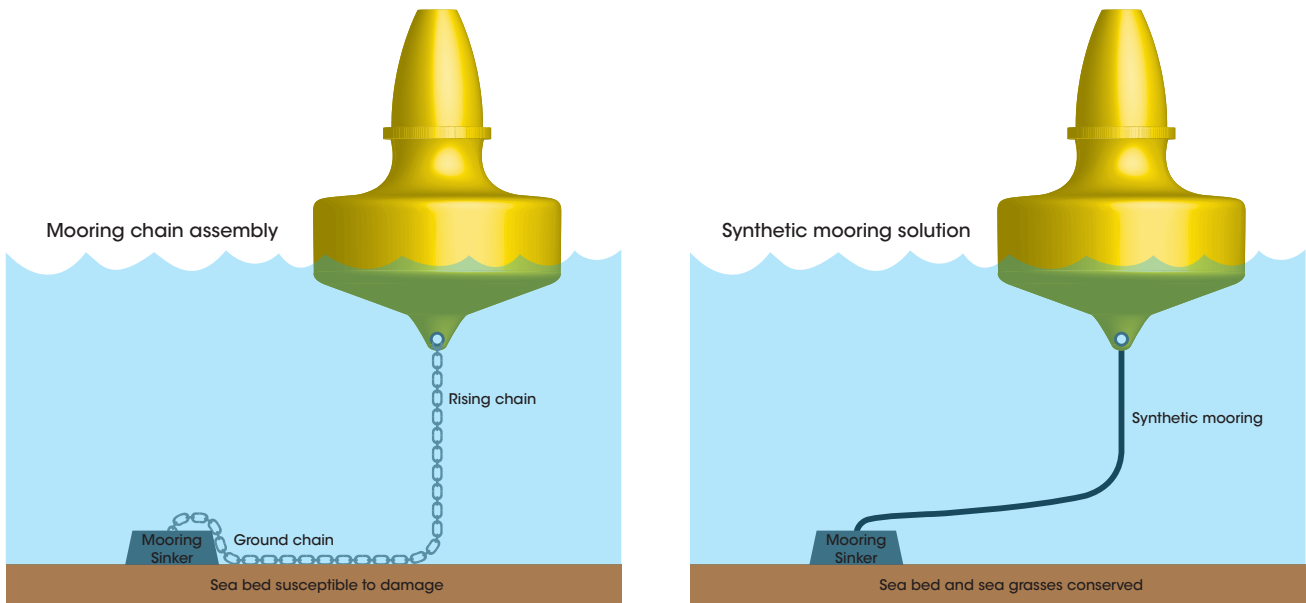


The Sealite Advantage

- High strength nylon 6.6 core with smooth stretch up to 20%
- Very flexible and lightweight and suitable with various attachment devices
- Easy to install with galvanised thimble eyelets embedded into the rubber casing. Heavy duty stainless steel thimbles available on request.
- UV stabilised and salt water resistant Mooring Line is virtually maintenance free for years
- Abrasion/cut resistant rubber protects the inner nylon fibres from the elements and keeps out water, mud and creatures
- Friendly to the marine environment
- Special thimble eye configurations can be requested
- Individual serial numbers for easy traceability through the use of internal RFID

Environmentally friendly

The Sealite synthetic mooring solution provides an environmentally friendly and long-lasting alternative to traditional chain and fibre rope mooring systems which can damage the sea bed and are detrimental to the marine environment. This is due to the positive buoyancy of the mooring line which floats versus the effect of ground chain around the mooring anchor.



Weights per length by Breaking strain

Break Strength ¹	4 tonne	8 tonne	12 tonne	20 tonne	30 tonne	50 tonne	70 tonne	100 tonne
4 metre length	4kg	5kg	5kg	6kg	10kg	17kg	20kg	29kg
6 metre length	5kg	6kg	6kg	8kg	12kg	20kg	25kg	36kg
10 metre length	8kg	7kg	9kg	12kg	18kg	32kg	40kg	55kg
15 metre length	11kg	9kg	11kg	16kg	25kg	43kg	59kg	79kg
20 metre length	12kg	12kg	14kg	21kg	30kg	56kg	78kg	102kg
SWL²	0.5t	1t	1.2t	2.4t	3.6t	6t	8.5t	12t
A.S. 1138 Galvanised Thimble size	22mm	22mm	24mm	28mm	36mm	44mm	52mm	52mm
316 Stainless Steel heavy duty thimble option	19mm	19mm	19mm	25mm	N/A	N/A	N/A	N/A

Specifications subject to change or variation without notice * Subject to standard terms and conditions

- Break strength is the applied load at which the mooring stop fails. Higher break strengths up to 100t and different lengths up to 20 metres standard and longer lengths available on request
- SWL from AS4497.1 Nylon Safety Factor 8.2:1

How to Order

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SL-SM- [tonne] - [length] - [thimble]

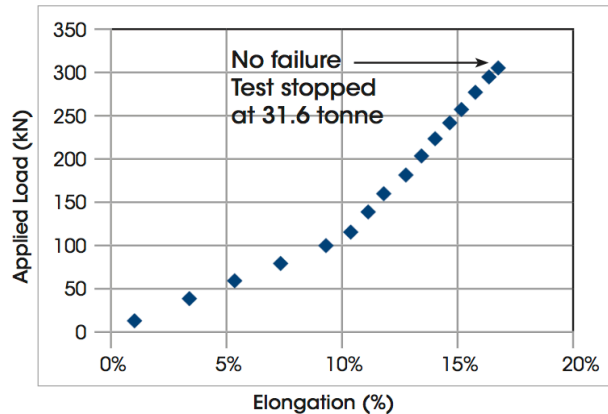
Product No.: _____

Break strength: _____
4, 8, 12, 20, 30, 50, 70 or 100 = tonne

Mooring length: _____
From 3–20 = Length of mooring (metres)

Thimble size: _____
22, 24, 28, 36, 44 or 52 = Galvanised thimble size (mm)
19 or 25 = Stainless thimble size (mm)

Applied load vs elongation (%)

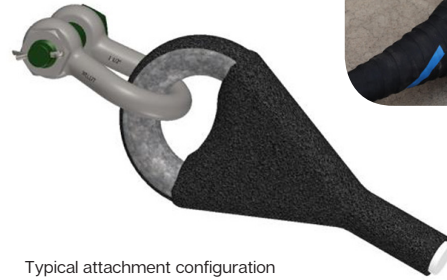
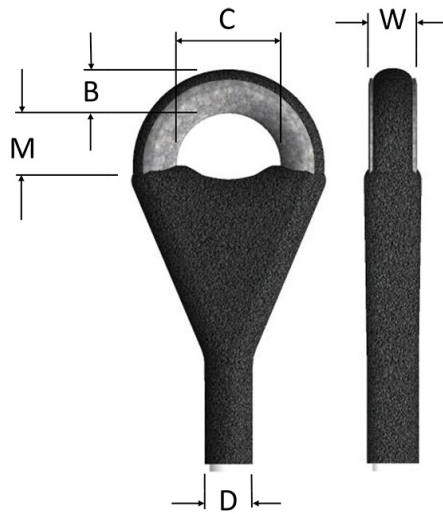


Break strength is the applied load at which the mooring line fails.

Applied load vs Elongation (%) curves vary for different sized mooring lines and for different eye combinations. Note: Applied Load of 294kN is roughly 30,000kgf. A 30t break strength mooring line fails above this applied load.

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Thimbles



Typical attachment configuration of mooring stop

Standard Galvanised Thimbles

Break Strength ¹	4 tonne	8 tonne	12 tonne	20 tonne	30 tonne	50 tonne	70 tonne	100 tonne
Galvanised Thimble Size to AS1138	Type 22mm	Type 22mm	Type 24mm	Type 28mm	Type 36mm	Type 44mm	Type 52mm	Type 52mm
C	56mm	56mm	64mm	76mm	105mm	125mm	140mm	140mm
B	30mm	30mm	32mm	34mm	40mm	60mm	60mm	60mm
M Note: rubber flaps in thimbles can be trimmed to suit	45mm	45mm	48mm	60mm	70mm	70mm	100mm	100mm
D	22mm	22mm	32mm	36mm	46mm	58mm	70mm	70mm
W	32mm	32mm	34mm	38mm	48mm	62mm	72mm	72mm
	38mm with rubber sides	38mm with rubber sides	38mm with rubber sides	42mm with rubber sides	52mm with rubber sides	66mm with rubber sides	76mm with rubber sides	76mm with rubber sides
E	10mm	10mm	11mm	14mm	16mm	18mm	20mm	20mm

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1. Break strength is the applied load at which the recovery stop fails

Thimble dimensions can vary within the AS1138 Standards and rubber trimming dimensions are approximate due to the manufacturing process

Optional Stainless Steel Thimbles

Break Strength ¹	4 tonne	8 tonne	12 tonne	20 tonne
316 Stainless Steel heavy duty thimble	Type 3/4" (19mm)	Type 3/4" (19mm)	Type 3/4" (19mm)	Type 1" (25mm)
C	52mm	52mm	52mm	64mm
B	30mm	30mm	30mm	34mm
M Note: rubber flaps in thimbles can be trimmed to suit	46mm	46mm	46mm	50mm
D	26mm	30mm	32mm	36mm
W	32mm	32mm	32mm	40mm
	36mm with rubber sides	36mm with rubber sides	36mm with rubber sides	45mm with rubber sides
E	6mm	6mm	6mm	7mm

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We believe technology improves navigation™

