



MILD STEEL CHAINS MANUFACTURED BY KITO PWB®

CHAIN IDENTIFICATION

CARE AND USE OF GRADE L CHAIN

KITO PWB® GRADE L CHAIN - GALVANIZED

KITO PWB® GRADE L FATHOM CHAIN

KITO PWB® REGULAR PROOF COIL CHAIN

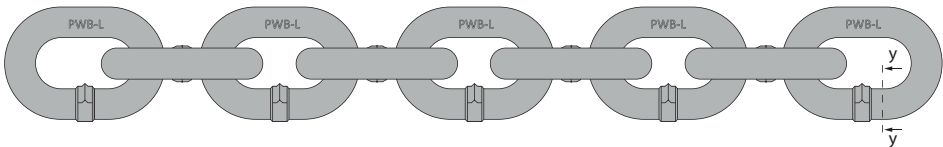
KITO PWB® LONG PROOF COIL CHAIN

Mild Steel Chains

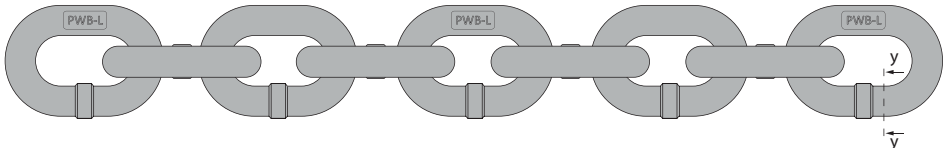
KITO PWB® Chain Identification

➤ Grade L Chain - Chain Identification (6.00mm - 22.00mm)



Use of the following charts is recommended to ensure that you only receive genuine KITO PWB® Chains.



Marking A: Grade-L Chain - identification mark showing “stamped” PWB (Brand Mark) - L (Grade)



Marking B: Grade-L Chain - identification mark showing “Embossed” PWB (Brand Mark) - L (Grade)

Chain Size (mm)	Markings	Stamp/ Emboss	Markings Interval	Letter Height (mm)	Weld Type	Identification Marking
6.0	PWB-L	Stamp	Every Link	1.6	Flash Cut	<div><p>Marking A: Brand Mark - Grade</p><p>Marking B: Brand Mark - Grade</p></div>
8.0	PWB-L	Stamp	Every Link	2.0	Flash Cut	
10.0	PWB-L	Stamp	Every Link	2.4	Flash Cut	
13.0	PWB-L	Emboss	6	3.3	Smooth	
16.0	PWB-L	Emboss	4	4.0	Modified (trim)	
20.0	PWB-L	Emboss	4	4.0	Modified (trim)	
22.0	PWB-L	Emboss	4	4.0	Modified (trim)	

CARE AND USE OF GRADE L CHAIN

MOORING, ANCHORING & MARINE CHAIN



Correct Care of my Anchor & Mooring Chain

KITO PWB® takes every precaution in their manufacturing and galvanizing processes to ensure the galvanized coating produced on their chains is consistent. Here are some informative facts about galvanizing that will help with understanding the importance of correct storage.

- The outer zinc layer of newly galvanized chain is comparatively soft.
- The outer layer develops a hard patina in 6-12 months by natural weathering of the galvanized surface. By weathering we mean alternate cycles of the chain being wet and dry. The wet cycle turns the zinc into zinc hydroxide which is porous and gelatinous.
- The dry cycle turns the zinc hydroxide into a dull matt hard protective zinc carbonate layer called a **patina**. The patina makes galvanized chain thirty times more corrosion resistant than steel.
- If the chain doesn't get the dry part of the cycle, the zinc will turn into zinc hydroxide and just rub off.
- Storing the chain in an airless damp area doesn't help the chain.
- Presence of moisture and lack of drying or ventilation will cause wet storage stain or "white rust".
- Wherever possible store in a well ventilated area under cover.
- Consider using plastic grating or rubber grass mats on the storage area to keep the chain dry.
- Always de-lid drums and containers of bulk chain to let the chain breath.
- Where possible, every few months lay the chain out in the sun and air to fully dry out.
- Any bare steel exposed through mechanical damage should be sprayed with cold galvanizing.



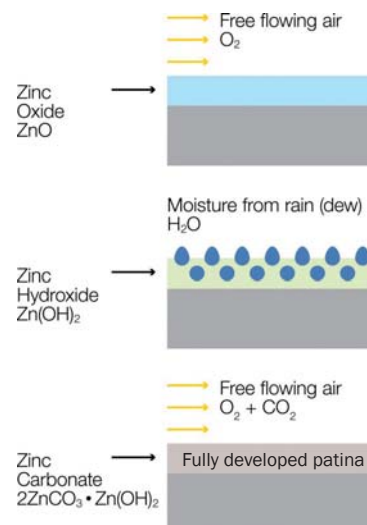
KITO PWB®, formerly PWB Anchor Limited, have been manufacturing a range of sizes of galvanized welded steel chain for mooring, anchoring and marine applications for many decades. These popular brands of Grade L, Grade L Fathom Chains, Grade P and Proof Coil are fit for purpose, but due to the environment they are used in, require care in their storage and use to ensure full product life is achieved.

Mild Steel Chains

How long will my Anchor Chain Last?

The answer to this question is very much dependant on where the chain is being used, how often it is used, and how it is cared for and stored when not in use. The rate of corrosion of galvanized chain is affected by many things. All of these factors should be considered when discussing chain life.

- The initial treatment and storage of the chain, whether it is kept in a sealed container or allowed to weather and dry out.
- The water temperature, whether warm tropical or cooler southern waters, and the water type, whether sea water, fresh soft water, fresh hard water.
- Any mechanical wear of the chain on the boat, such as rubbing on gypsy or rolling over anchor wheel.
- Any abrasive wear in the water such as the boat drifting at its mooring dragging the chain in sand, dragging chain over rocks and so on.
- Where the vessel is moored, such as close to a river, close to effluent outfall, close to strong currents.
- The velocity of water the vessel is moored in, such as still, light currents, strong currents, waves etc
- The depth of the chain in the water. High oxygen levels in the splash zone and tidal zone accelerate corrosion, whereas low oxygen levels in deep water produce lower corrosion levels.
- Distance from the coast has a significant effect on corrosion levels. For example salt air concentrations are higher near the sea but can blow inland quite a distance.
- Cleanliness of the anchor chain is important. Salt and mud should be washed off regularly with potable water.



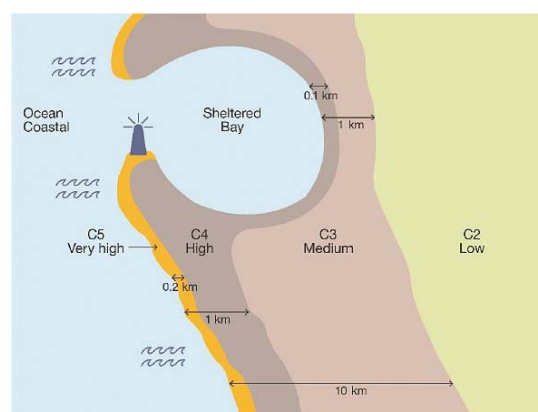
Formation of the **patina** is important in providing extended chain life.



Incorrect storage of chain will cause wet storage stain known as "white rust".

Atmospheric corrosivity in Australia described in AS/NZS 2312.2

Corrosivity category	Corrosion rate steel $\mu m/year$	Corrosion rate zinc $\mu m/year$	Typical exterior environment
C1: Very low	<1.3	<0.1	Few alpine areas
C2: Low	1.3 to 25	0.1 to 0.7	Arid/ rural/ urban
C3: Medium	25 to 50	0.7 to 2.1	Coastal
C4: High	50 to 80	2.1 to 4.2	Sea-shore (calm)
C5: Very high	80 to 200	4.2 to 8.4	Sea-shore (surf)
CX: Extreme	200 to 700	8.4 to 25	Shoreline (severe surf)



Distance from the coast can have a significant effect on the corrosion rate of your anchor/mooring chain.

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KITO PWB® GRADE L CHAIN - GALVANIZED



Applications

- ✓ Used as fathom, mooring and anchoring
- ✓ Ideal for the marine, boating fishing, leisure craft, aquaculture industries

Features

- ✓ Manufactured primarily for mooring and anchoring applications.
- ✓ KITO PWB® Grade L Chain is also the highest quality lower tensile steel available for lifting purposes.
- ✓ Chain sizes 6mm to 22mm available.
- ✓ Selected Grade L Chains are also available in special cut lengths, chain sizes 8mm to 13mm.
- ✓ Test certificates supplied.

The WLL (working load limit) states Grade L Chain is rated for general conditions of use to group classification of crane mechanisms of M3 as specified in AS1418.1, and in accordance with AS2321 for industrial lifting applications.

For other than general conditions of use the WLL shall be adjusted to conform to the group classification of crane mechanisms as specified in AS1418.1 for the conditions of use that apply.

Australian standard: AS 2321

Chain Size: 6 – 22mm

Used by respected boat builders across the country, Grade L Chains are manufactured in Australia from Australian steel. Grade L Chain is the highest quality lower tensile steel available for lifting purposes.

Available in

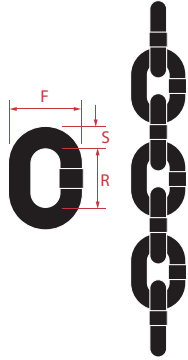


Special cut lengths

Mild Steel Chains

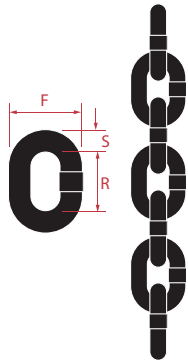
Specifications

➤ Grade L Chain – Galvanized



Chain Size (mm)	Design 5:1 (Lifting) WLL (tonnes)	Design Factor 4:1 (Mooring) MWL (tonnes)	S (mm)	R (mm)	F (mm)	Self-Colour Part No.	Metres/100kg	Galvanised Part No.	Metres/100kg	Link Marking
6	0.40	0.50	6.3	18.8	21.6	40073	116.0	40074	110.0	PWB-L
8	0.64	0.80	8.0	23.8	27.0	40075	71.4	40076	67.8	PWB-L
10	1.00	1.26	10.0	29.8	34.3	40077	45.4	40078	43.2	PWB-L
13	1.70	2.10	12.7	38.0	43.0	40079	29.6	40080	27.8	PWB-L
16	2.58	3.20	16.0	47.8	54.9	40081	17.8	40082	17.5	PWB-L
20	4.03	5.00	20.0	59.2	68.5	40083	11.3	40084	11.1	PWB-L
22	5.06	6.30	22.0	64.9	77.0	40085	9.5	40086	9.2	PWB-L

➤ Grade L Chain – Galvanized – Cut Lengths



Chain Size (mm)	S (mm)	R (mm)	F (mm)	Cut Length (metres)	Galvanised Part No.
8	8.0	23.8	27.0	6 x 55	68233
8	8.0	23.8	27.0	5 x 70	68244
10	10.0	29.8	34.3	3 x 70	68156
10	10.0	29.8	34.3	2 x 100	68201
10	10.0	29.8	34.3	3 x 60	68295
10	10.0	29.8	34.3	2 x 80	68296
13	12.7	38.0	43.0	1 x 100	68202
13	12.7	38.0	43.0	2 x 70	68322

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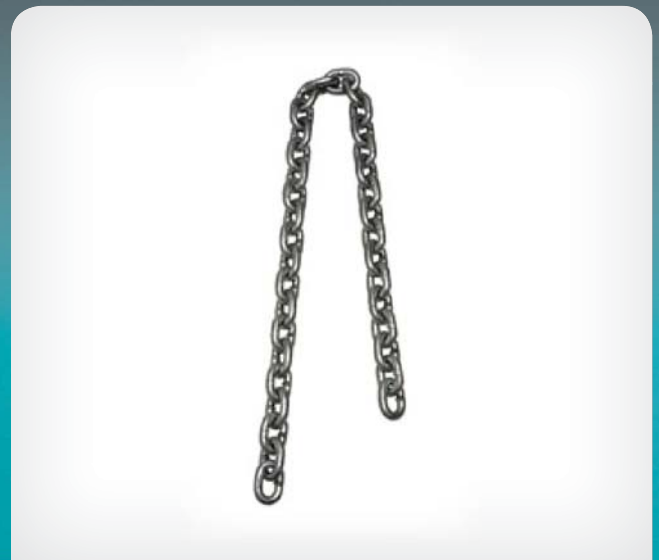
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KITO PWB® GRADE L FATHOM CHAIN



Applications

- ✓ Used in the commercial fishing and leisure craft industries

Features

- ✓ Available in various lengths.
- ✓ Provided with galvanized end links as standard.
- ✓ The maximum working load stated is based on a Design Factor of 4:1.
- ✓ Fathom Chains are NOT certified for industrial lifting.
- ✓ Test certificates supplied.

Australian standard: AS 2321

Chain Size: 10 – 22mm

Manufactured from Grade L Chain with additional end link fittings, KITO PWB® Fathom Chains are supplied in a hot dip galvanised finish for added durability.

Available in

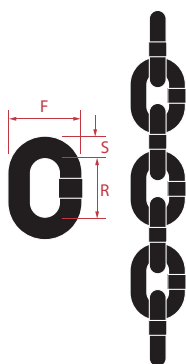


109m, 137m & 164m

Mild Steel Chains

Specifications

- **Grade L Fathom Chain – 60 Fathom (109m)**
- 75 Fathom (137m)**
- 90 Fathom (164m)**



Chain Size (mm)	MWL (tonnes)	S (mm)	R (mm)	F (mm)	60 Fathom (109 metres) Part No.	75 Fathom (137 metres) Part No.	90 Fathom (164 metres) Part No.
		End Links					
10	1.26	12.0	51.7	45.0	40785	40786	40787
13	2.10	16.0	59.0	57.3	40793	40794	40795
16	3.20	20.0	73.0	71.10	40801	40802	40803
20	5.00	24.0	87.0	84.8	40809	40810	40811
22	6.30	29.0	112.0	110.0	40817	40818	40819

Application



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KITO PWB® REGULAR PROOF COIL CHAIN



Applications

- ✓ Used in manufacturing, marine and agricultural industries
- ✓ Ideal for a wide variety of mooring and general applications

Features

- ✓ Manufactured in Australia.
- ✓ Chain sizes available from 6mm to 24mm in self-color and galvanized.
- ✓ Pail Paks available in self colour and galvanised finishes in handy reuseable 20 litre plastic containers.
- ✓ Pail Paks 6mm to 13mm are prepacked from chain manufactured in Australia.
- ✓ Not suitable for industrial lifting purposes.
- ✓ Test certificates available on request.

The MWL stated is for guidance in the selection of a chain with sufficient strength for intended applications. Dimensions and masses subject to commercial tolerances and design changes without notice.

Chain Size: 3 – 24mm

Manufactured from a lower grade carbon steel, this versatile range of chain is proof tested to at least twice the maximum load recommended for normal use.

Available in

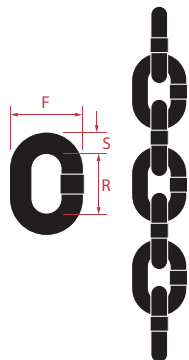


Easy-to-handle
pail pak

Mild Steel Chains

Specifications

➤ Regular Proof Coil Chain



Chain Size (mm)	MWL (tonnes)	S (mm)	R (mm)	F (mm)	Part No. (Self-Colour)	Metres/100kg	Part No. (Galvanised)	Metres/100kg	Link Marking
3	0.06	3.0	16.6	13.1	41717	602.0	41718	585.0	-
4	0.11	3.8	19.6	15.8	41719	378.0	41720	367.0	-
5	0.19	4.75	23.2	19.1	41721	245.0	41722	238.0	-
6	0.32	6.0	28.0	24.0	40019	144.1	40021	135.7	PWB
8	0.53	7.6	35.8	29.2	40024	90.6	40026	87.7	PWB
10	0.86	9.5	43.4	35.5	40029	59.0	40031	57.8	PWB
13	1.50	12.0	51.7	44.5	40034	35.5	40036	34.6	PWB
16	2.31	16.0	59.6	57.3	40038	19.0	40039	18.6	PWB
20	3.67	20.0	73.3	71.0	40040	12.3	40041	12.0	PWB
24	5.34	24.0	87.0	84.8	40042	8.6	40043	8.4	PWB

➤ Regular Proof Coil Chain – Pail Pak



Chain Size (mm)	Metres/Pail Pak	Part No. (Self-Colour)	Metres/Pail Pak	Part No. (Galvanised)	Approx Weight (kg)
3	100	41440	100	41443	100.0
4	80	41441	80	41444	80.0
5	50	41442	50	41445	50.0
6	60	41461	60	41471	44.3
8	40	41462	40	41472	45.6
10	25	41463	25	41473	43.3
13	15	41464	15	41474	43.4

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KITO PWB® LONG PROOF COIL CHAIN



Applications

- ✓ Used in a wide variety of agricultural and general applications
- ✓ Ideal for agricultural equipment, barriers, general purpose uses

Features

- ✓ Longest link formation in the proof coil range.
- ✓ Sizes 6mm to 10mm manufactured in Australia, from Australian made steel.
- ✓ Proof Coil Chain is not suitable for industrial lifting purposes.
- ✓ Test certificates available on request.

The MWL (Maximum Working Load) stated is for guidance in the selection of a chain with sufficient strength for intended applications.

Dimensions and masses subject to commercial tolerances and design changes without notice.

Chain Size: 3 – 10mm

With the longest link formation in the proof coil range, the KITO PWB® Long Proof Coil Chain features more generous link dimensions to provide more metres per 100kg.

Available in

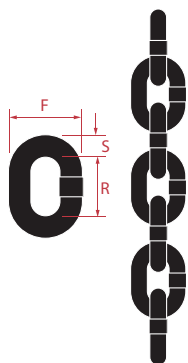


Easy-to-handle
pail pak

Mild Steel Chains

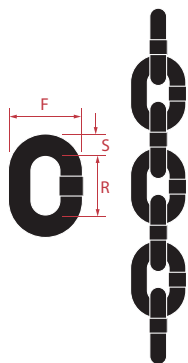
Specifications

➤ Long Proof Coil Chain



Chain Size (mm)	MWL (tonnes)	S (mm)	R (mm)	F (mm)	Part No. (Self-Colour)	Metres/100kg	Part No. (Galvanised)	Metres/100kg	Link Marking
3	0.05	3.0	23.2	15.4	41723	649.0	41724	620.0	-
4	0.09	3.8	26.8	18.4	41725	391.0	41726	379.0	-
5	0.15	4.8	29.8	21.5	41727	243.0	41728	233.0	-
6	0.26	6.0	36.2	26.0	40059	152.1	40061	148.4	PWB
8	0.46	7.6	43.5	31.0	40063	93.4	40065	91.1	PWB
10	0.75	9.5	53.1	39.0	40067	61.2	40069	59.7	PWB

➤ Long Proof Coil Chain – Galvanized – Pail Pak



Chain Size (mm)	Metres/Pail Pak	Part No. (Self-Colour)	Metres/Pail Pak	Part No. (Galvanised)	Approx Weight (kg)
3	100	41450	100	41453	16.5
4	80	41451	80	41454	19.5
5	50	41452	50	41455	22.0
6	60	41501	60	41511	40.5
8	40	41502	40	41512	43.2
10	25	41503	25	41513	43.1

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