

# Marlow<sup>®</sup> DATASHEET

## PH-I STATIC



pH-I Static has a unique colour change marker that will change from yellow to red when exposed to strong acids. Even a 20 seconds exposure to some acids can weaken a rope by 25%, compromising safety. Longer exposure will increase this strength loss.

pH-I Static (Permanent Halochromic Indicating) offers a clearly defined permanent colour change, indicating when a rope has been compromised by strong acid chemicals and should be retired. pH-I Static meets UKCA and CE EN 1891 certification.



UNEXPOSED ROPE



EXPOSED ROPE

### APPLICATIONS

- Industrial access
- Cleaning with chemicals
- Paint stripping
- Lime scale stripping
- Weld preparation

### PHYSICAL PROPERTIES (NYLON)

#### RELATIVE DENSITY

1.14 exact figure varies with diameter

#### CHEMICAL RESISTANCE

Good resistance to most chemicals, except acids\*

#### UV RESISTANCE

UV stabilised

#### MELTING POINT

220°C

### KEY ATTRIBUTES :

High strength, high energy absorption, good abrasion resistance, visible year marker, chemical exposure alert. High flex / soft handling

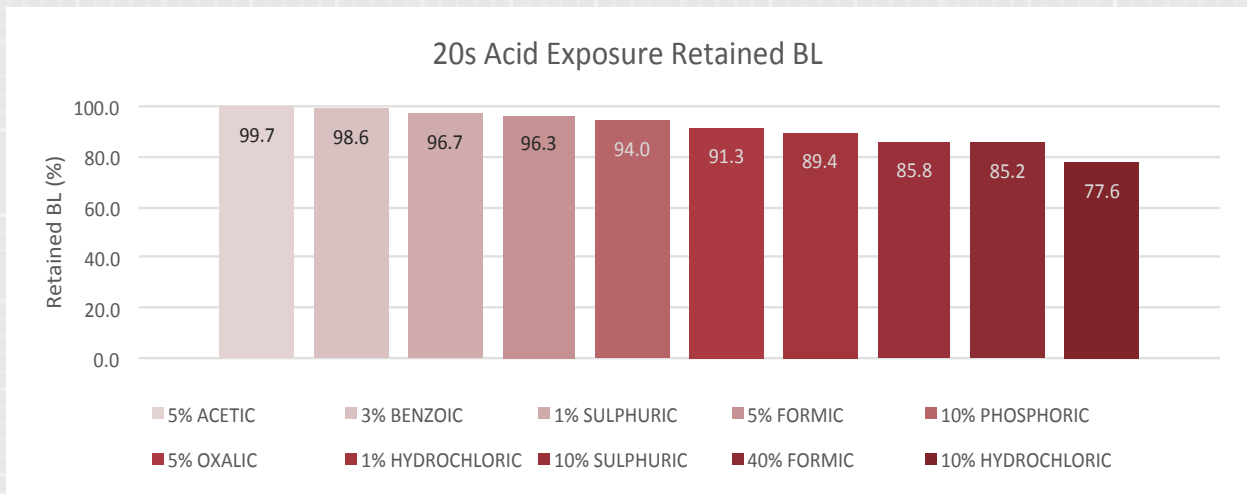
### TESTING STANDARDS:

CE and UKCA certified.

ACID SOLUTION	RETAINED BL %	COLOUR AFTER 20S EXPOSURE
10% Hydrochloric	77.6	Strong red
40% Formic	85.2	Strong red
10% Sulphuric	85.8	Strong red
1% Hydrochloric	89.4	Red
5% Oxalic	91.3	Red
10% Phosphoric	94.0	Strong orange
5% Formic	96.3	Orange
1% Sulphuric	96.7	Orange
3% Benzoic	98.6	No change (yellow)
5% Acetic	99.7	No change (yellow)

**INDICATION:**

The table shows the retained break load of static ropes exposed to common chemical solutions for 20 seconds.



PROPERTY	10.5mm	11mm	12mm	PROPERTY	10.5mm	11mm	12mm
Rope Classification Type A or B	A	A	A	Mass Rope (g/m)	67.2	73.8	90.3
Diameter (mm)	10.4	11	12	Minimum static strength ex terminations (kN)	22	22	22
Sheath Slippage	0	0.4	0.2	Average static strength with terminations (kN)	33.4	35.3	42.8
50-150kg Elongation	2	2.4	1.9	Minimum static strength with terminations (kN)	15	15	15
Shrinkage	5	4	4.3	Average static with sewn eye (kN)	25.1	30.9	36.2
Mass Core	34.7	40.6	56.8	Average static with fig.8 loop (kN)	19.5	21.1	24.3
Mass Cover	32.5	33.1	33.6	Fall Factor 1 falls. fig.8 loop (kN)	10+	10+	10+

Marlow Ropes Ltd  
Ropemaker Park  
Hailsham  
East Sussex, BN27 3GU  
England

Marlow Ropes, Inc.  
Cordage Business Park  
Plymouth  
MA 02360  
USA

www.marlowropes.com  
UK: +44 (0) 1323 444 444  
sales@marlowropes.com  
US: +1 508 830 444  
salesusa@marlowropes.com



**Disclaimer**

Marlow Ropes Ltd endeavours to ensure that all products are manufactured to the highest standard, these guidelines are not intended and do not create any warranties, express or implied. Marlow Ropes Ltd expressly disclaims warranties or representations of any kind, express or implied, including the implied warranties of merchantability and fitness for a particular purpose. Marlow Ropes Ltd shall not be liable for any consequential, incidental or contingent damages whatsoever stemming from the use of these guidelines. Marlow Ropes Ltd has a policy of continual improvement which may result in specification and colour changes without prior notice.

