

Marlow[®] 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 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

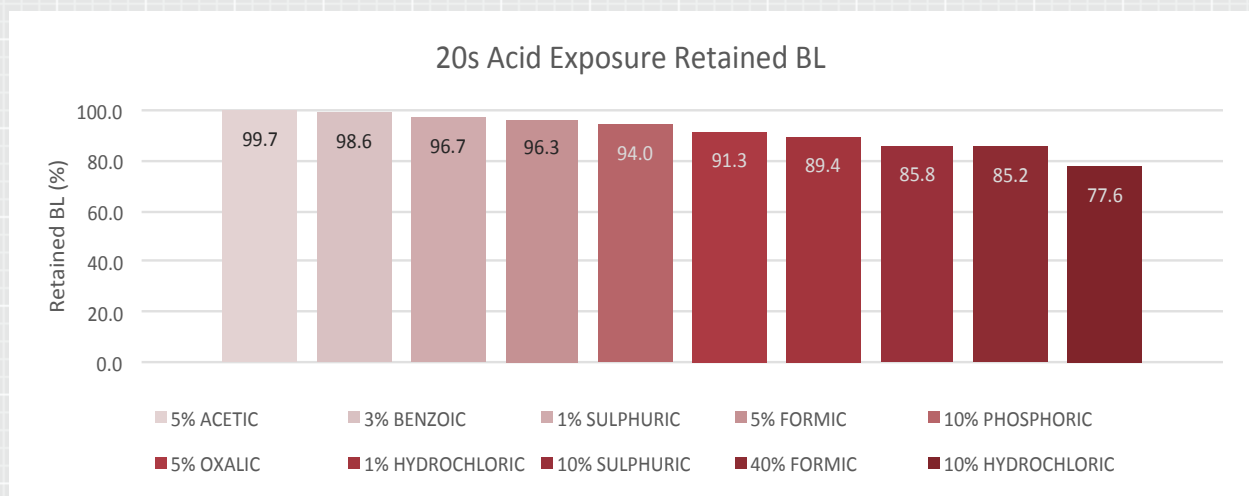
TESTING STANDARDS:

CE 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+

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