



AS/NZS
4020



Mandals Aquaman M is designed for the effective rehabilitation of drinking water mains in medium pressure systems. The liner is drinking water approved and is designed to have a lifespan of more than 50 years.

With Mandals Aquaman M we offer a more sustainable solution for the rehabilitation of old pipelines with minimal disruption to traffic, pedestrians, and the environment in general, with an improved CO₂ footprint and HSE performance. The liner is tested and approved for use with potable water, and it is flexible in terms of the diameter variation of the original pipe, effortlessly passing bends even at long section lengths. Aquaman M has a lower pressure series in Aquaman L.

Installation

Mandals supplies the liner leak-proof tested, and tape wrapped in a "U"-shape. Prior to installation a regular cleaning procedure is required of the host pipe and condition controlled by CCTV inspection.

The liner is pulled through the host pipe by using a winch and can be installed in pipes having bends up to 45° (R/D ≥ 5)¹. No steaming is needed to cure the liner, only a small amount of pressure is required to break the tape. Thereafter the liner is re-coupled and connected again to the existing infrastructure and the system is ready to be put back into operation.

Features

- Resistant to a wide range of chemicals.
- Full diameter recovery after pressure release.
- Excellent hydrolysis and fungus resistance.
- Outstanding wear and tear properties.
- Accelerated aging tests performed at a chlorine dosage up to 4ppm indicate a Service Lifetime of more than 50 years².

Construction

- Mandals Aquaman M is a semi-structural, stand-alone liner which will absorb all internal pressure while in operation.
- The "extrusion through the weave" production technology gives excellent bonding between thermoplastic polyether-based polyurethane cover and lining as well as firmly encapsulating the circular woven aramid reinforcement – ensuring the high burst pressure performance of the liner.

Properties

- Length up to 400m.
- Color options: Blue (standard).
- Max. recommended operational temperature is +23° (+73°F) at a 4-9 pH range.
- NSF/ANSI/CAN61 and AS/NZS 4020 certifications for potable water.

Aquaman M

Article Number	Nominal Pipe Size DN		Inner Diameter ³		Wall Thickness		Nominal Weight		Maximum Working Pressure ⁴		Burst Pressure		Actual Total Tensile Strength	
	inch	mm	inch	mm	inch	mm	lbs/ft	kg/m	psi	bar	psi	bar	X1000 lbs	X1000 kg
AQM150	6	150	4.84	123.0	0.18	4.6	1.40	2.10	812	56	2030	140	100	45
AQM200	8	200	6.57	167.0	0.18	4.6	1.93	2.90	580	40	1450	100	137	62
AQM250	10	250	8.35	212.0	0.18	4.6	2.51	3.76	435	30	1088	75	172	77
AQM300	12	300	10.16	258.0	0.18	4.6	3.00	4.50	377	26	928	64	211	95
AQM350	14	350	11.70	297.0	0.18	4.6	3.47	5.20	290	20	725	50	242	109

Note:

¹Will depend on Operating Pressure and the R/D ratio. A higher R/D and/or Operating Pressure can allow a higher bend angle.

²Service Lifetime will depend on important factors such as proper and correct installation, condition of the existing pipe, dosage of and type of disinfectants used. ³Tolerance range based on ISO1307 Type C. ⁴Values are for hose only; allowed working pressure can not exceed coupling pressure rating. For questions about chemical resistance please check mandals.com/support.