

Australian Standard Coiled Pipe Markers

AS 1345-1995



The AS 1345-1995 pipe marking standard was designed to quickly identify a pipe's contents and the direction of flow, by means of a standard colour coding scheme, text, flow direction arrows, and symbols. This prevents accidents, and may be useful in an emergency situation.

Seaward Safety's Coiled Pipe Markers conform to AS 1345-1995, which details how and where a piping, ducting and conduit system should be identified. This can include interior and exterior systems, of all pipe, ducting and conduit arrangements.

Our Turn-Key service offers our customers a complete end-to-end project solution. This encompasses our survey, design, manufacture and installation services, as well as any after-sales support that is required. If our comprehensive Turn-Key service is not required, each of the above listed services are available individually.

During a survey, our surveyor will use your P&IDs to identify your pipe marking requirements, as per AS 1345-1995.

Seaward Safety also offers a global installation service. This can be conducted offshore, quayside, in shipyards etc.

Typical AS 1345-1995 pipe marker information:-

- Colour code, with contrasting border.
- Content identification text.
- Chevrons to identify the direction of flow.
- Relevant hazardous symbols.

Key benefits:

- Durable and long lasting.
- Temperature range: -40°C to 200°C.
- Coiled self-locking material; adheres to itself rather than the pipe - preventing rust/corrosion
- Excellent thermal and dimensional stability.

SYSTEM	EXAMPLE MARKER	COLOUR CODE	CHEVRONS / ARROWS
WATER		WHITE ON GREEN	GREEN
STEAM		BLACK ON SILVER-GREY	BLACK
OILS, FLAMMABLE AND COMBUSTIBLE LIQUIDS		WHITE ON BROWN	BROWN
GASES		BLACK ON YELLOW-OGHRE	BLACK
ACIDS AND ALKALIS		WHITE ON VIOLET	VIOLET
AIR		WHITE ON LIGHT BLUE	LIGHT BLUE
OTHER LIQUIDS		WHITE ON BLACK	BLACK
FIRE SERVICES		WHITE ON RED	RED
ELECTRIC POWER		WHITE ON ORANGE	ORANGE
COMMUNICATIONS		BLACK ON WHITE	BLACK

Supplementary Colours and Hazard Identification Symbols

Symbols and colour bands are used in conjunction with the primary colour to identify additional hazards.





TECHNICAL SPECIFICATIONS

POLYESTER SUBSTRATE

Property		Test method	Unit	Values	
General	Film thickness		micron	100	
	Area Yield		m ² /kg	7.1	
	Unit Weight		g/m ²	140	
	Density	ASTM D1505	g/cc	1.39	
Mechanical	Tensile strength at break (minimum)	MD	ASTM D882-83 (23°C, 50% rh, strain rate 50% min)	kgf/mm ²	14
		TD			17
	Stress at 5% strain (F5)	MD		kgf/mm ²	8
		TD			8
	Elongation at break	MD		%	120
TD		120			
Slip (co-efficient of static friction)		ASTM D1894-79 (modified)		0.4	
Optical	Color (D65 - 10°)	ASTM E313-79		L* = 97.8 a* = 0.1 b* = -3.2	
	Gloss	ASTM D2457-90 (Gardner 60°)	%	45	
	Total light transmittance (maximum)	ASTM D1003-77 (Gardner Hazemeter)	%	8	
Thermal	Upper melt temperature	ASTM E794-85	°C	255 to 260	
	Coefficient of thermal expansion (between 20 & 50°C)	MD	cm/cm/°C	19 x 10 ⁻⁶	
		TD		16 x 10 ⁻⁶	
	Shrinkage (175 micron film)	MD	5 mins at 190°C	%	3
TD		1			

PROTECTIVE OVERLAMINATE

PROPERTY	TEST METHODS	TYPICAL VALUE	
Surface Finish	Gloss Meter 60° Reflection	80-90% (Gloss) 35-45% (Satin) 05-10% (Matte)	
Thickness	Micrometer, Federal Bench Type	3-mil (75 micron)	
Tensile Strength	Tensile Tester with 2-in (51mm) jaw separation; crosshead speed of 12 in/min. (5.1 mm/s), web direction	10 lb/in width	1.8 kg/cm width
Elongation	Instron Tensile Tester as above	≥ 130%	
Application Temperature Range	On clean, dry substrate	40 - 100°F optimum	4.4 - 38°C optimum
Service Temperature Range	On clean, dry substrate	-20 - 150°F	-29 - 65°C
Humidity Resistance	Applied to etched aluminium panels 24hrs prior to testing. 100% release humidity, 100°F (38°C) for 500 hrs.	No appreciable effect	
Gasoline Resistance	Film applied to etched aluminium panels 24hrs prior to testing. Immersed 30 minutes at 70°F (21°C), stabilized 24hrs before inspection	No appreciable effect	
Dimensional Stability	158°F (70°C), 48 hours	20-mils	0.51 mm
Peel Adhesion	PSTC-1, 15 min, RT 70°F (21°C)	2.5 lb/in	0.45 kg/cm
Liner Release	TLMI Release at 90°, 300 in/min (760 cm/min)	120 g/2 in width	47 g/cm width