

3M™ EMS Warning Tape 7900 Series

Data Sheet

March 2021

The 7900 Series EMS Warning Tape is engineered to provide visual verification of underground utilities and can include the following additional features:

7900 EMS Warning Tape – Includes an EMS marker laminated between two pieces of film.


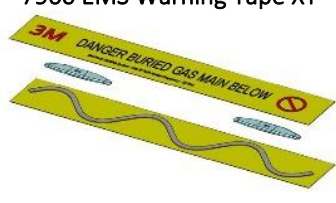
7900 Warning Tape XT – Includes an aramid fiber core material and EMS markers.

Features include core material to provide high strength with 3M RF Path Marking technology for locating. The RF technology does not require an electrically continuous path to provide detection in places where the tape has been damaged or detection where it is prohibitive to have an electrical path.

Each design supports custom text to provide any excavators information about the asset below.

Agency Approvals & Self Certifications For RoHS information, please visit www.3M.com/ROHS
RoHS Compliant

Physical Specifications

Models	7900 EMS Warning Tape	7900 EMS Warning Tape XT
		
Length	500ft (152m)	500ft (152m)
Tensile Strength	4"/240lb (10cm/1kN) 6"/360lb (15cm/1.6kN) 12"/720lb (30cm/3.2kN)	3000lb (13kN)
Elongation	20% at failure	4" (10cm) - 25% 6" (15cm) - 25% 12" (30cm) - 50%

Property	Component	Test Method	Value
Weight	4" (10cm) width 6" (15cm) width 12" (30cm) width	Mfg. Tested Mfg. Tested Mfg. Tested	15 LBS/500 ft (6.8kg/150m) 18 LBS/500 ft (8.1kg/150m) 28 LBS/500 ft (12.7kg/150m)
Thickness	PE film +core material	ASTM D2103 ASTM D2103	11 MIL (.28mm) 80 Mil (2.03mm) +Add 2 cm at RF marker
Break-Strength	XT core material	ASTM D6775	3,000 lbs. (13kN)
Printability	PE film	ASTM D2578	34 dynes

Elongation	
Component	Value
4" (10 cm) & 6" (15 cm) width	25% - 1.25/1 ratio of core material slack to film run
12" (30 cm) width	50% - 1.5/1 ratio of core material slack to film run
XT core material	TO 4% AT ULTIMATE BREAK, LESS THAN 1.5% AT 90% OF ULTIMATE BREAK STRENGTH.

Environmental Specifications	
Operating temperature	-4° F to 122° F (-20° C to 50° C)
Storage temperature	-4° F to 140° F (-20° C to 60° C)
Environmental Standard	IP68
Impact Rating of Marker	IK-9 (Tag)
Chemical Resistance	Excellent resistance to acids. Good resistance to alkalis.

Electrical Specifications		
Marker Detection Depth	4' (1.2 m) for 3M Dynatel™ Locators 7420, 7550 and 7573. 3' (.9 m) for 3M Dynatel Locator 1420-iD, 2250MiD, 2273M-iD, 2550-iD and 2573-iD (for units with compatible hardware)	
Nominal Distance Between Markers	8ft. (2.4m)	
Minimum Separation from Metallic Facilities	4 in (10 cm)	
Utility	Color	Frequency
Gas	Yellow	53.9 kHz
Telecom	Orange	48.8 kHz
Power	Red	34.9 kHz
Water	Blue	73.5 kHz
Wastewater	Green	41.4 kHz
Reclaimed Water	Purple	44.9 kHz

*APWA Guidelines. Check local reference as some exceptions may apply.

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