

# 3M™ EMS Warning Tape 7900 Series

Data Sheet

August 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.

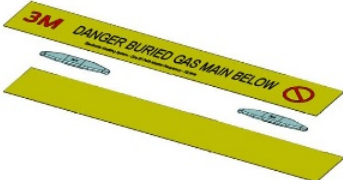
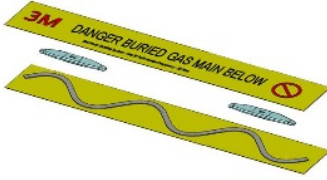
7900 Warning Tape XT – Includes an aramid fiber core material and EMS markers.

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](http://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)
Break Strength (ASTM D6775)		3,000 lbs. (13kN)
Elongation	20% at failure	4" (10cm) - 25% 6" (15cm) - 25% 12" (30cm) - 50% TO 4% AT ULTIMATE BREAK, LESS THAN 1.5% AT 90% OF ULTIMATE BREAK STRENGTH.
Weight Mfg. Tested	4" (10cm) width - 15 LBS/500 ft (6.8 kg/150m)	4" (10cm) width - 21 LBS/500 ft (9.5 kg/150m)
	6" (15cm) width - 18 LBS/500 ft (8.1 kg/150m)	6" (15cm) width - 24 LBS/500 ft (10.9 kg/150m)
	12" (30cm) width - 28 LBS/500 ft (12.7 kg/150m)	12" (30cm) width - 34 LBS/500 ft (15.4 kg/150m)
Thickness (ASTM D2103)	11 MIL (.28mm) +Add 2 cm at RF marker	80 Mil (2.03mm) +Add 2 cm at RF marker
Printability PE Film (ASTM D2578)	34 dynes	34 dynes

**Environmental Specifications**

**Operating temperature** -4° F to 122° F (-20° C to 50° C)

<b>Storage temperature</b>	<b>-4° F to 140° F (-20° C to 60° C)</b>	
<b>Environmental Standard</b>	<b>IP68</b>	
<b>Impact Rating of Marker</b>	<b>IK-9 (Tag)</b>	
<b>Chemical Resistance</b>	<b>Excellent resistance to acids. Good resistance to alkalis.</b>	
<b>Electrical Specifications</b>		
<b>Marker Detection Depth</b>	<b>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)</b>	
<b>Nominal Distance Between Markers</b>	<b>8ft. (2.4m)</b>	
<b>Minimum Separation from Metallic Facilities</b>	<b>4 in (10 cm)</b>	
<b>Utility</b>	<b>Color</b>	<b>Frequency</b>
<b>Gas</b>	<b>Yellow</b>	<b>53.9 kHz</b>
<b>Telecom</b>	<b>Orange</b>	<b>48.8 kHz</b>
<b>Power</b>	<b>Red</b>	<b>34.9 kHz</b>
<b>Water</b>	<b>Blue</b>	<b>73.5 kHz</b>
<b>Wastewater</b>	<b>Green</b>	<b>41.4 kHz</b>
<b>Reclaimed Water</b>	<b>Purple</b>	<b>44.9 kHz</b>

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

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Electrical Markets Division  
13011 McCallen Pass, Bldg. C  
Austin, TX 78753-5380  
800.200.0265  
FAX: 800.245.0329  
[www.3M.com/dynatel](http://www.3M.com/dynatel)

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