



FIRE/SMOKE DAMPER

CHILLED WATER RETURN

Description

MS-478 and MS-478TO self-adhesive pipe markers and labels are manufactured from premium grade polyester with a permanent pressure-sensitive acrylic adhesive. They are used to provide line service designations, system color-coding or various labeling needs. Flow directional arrow tape or individual arrow markers are used with pipe markers to indicate direction of flow. MS-478 markers are available in a variety of standard and custom colors. To extend service life, optional MS-1000 over-lamination may be added (MS-478TO). MS-478 contains no PVC (Polyvinyl Chloride).

Physical and Chemical Characteristics

Base Material for MS-478:	.002" (0.051 mm) thick Polyester
Service Temperature:	-50°F through 250°F (-45°C thru 121°C)
Application Temperature:	+50°F (10°C)
Water Resistance:	Excellent
UV Resistance:	Good
Chemical Resistance:	Resistant to acids; alkalis and salts
Expected Outdoor Durability:	Base Material: 1 year; With optional MS-1000 over lamination 5 years
Storage Durability:	Two years when stored at +73°F (22°C) and 50% relative humidity
Finish:	Semi-gloss surface (MS-478); Gloss surface (MS-478TO)
Text Height:	Sized to fit within label boundary or comply with specified height
Mounting:	Permanent pressure sensitive acrylic adhesive backing
Standard Colors Available:	White, Red, Green, Yellow, Orange, Blue, Black. Custom colors available upon request.

Label Sizes and Letter Heights

Marker Size	Pipe Diameter	Marker Style	Color Field	Letter Height
1" x 8"	3/4" – 2-1/4"	A	8" long	3/4"
2-1/4" x 13"	2-1/2" – 7-7/8"	B	13" long	1-3/4"
4" x 24"	8" – 10"	C	24" long	2-1/2"
4" x 32"	Over 10"	D	32" long	3-1/2"

*Individual arrow markers are the same width and one-half the length of the pipe markers.





Designation of Colors (ASME A13.1-2015 & ANSI Z535-2017)

Designation of Colors — ASME A13.1-2015 & ANSI Z535-2017 Standards		
Classification	Color Scheme	
Defined Applications		
Fire quenching liquids	White text on red	Sample
Toxic and corrosive fluids	Black text on orange	Sample
Flammable fluids	Black text on yellow	Sample
Combustible fluids	White text on brown	Sample
Potable, cooling, boiler feed and other water	White text on green	Sample
Compressed air	White text on blue	Sample
Undefined Applications		
Defined by user	White text on purple	Sample
Defined by user	Black text on white	Sample
Defined by user	White text on gray	Sample
Defined by user	White text on black	Sample

Designation of Colors (ANSI/ASME A13.1-1996)

Designation of Colors — ANSI/ASME A13.1-1996 Standards		
Classification	Color Scheme	
Materials Inherently Hazardous		
Flammable or Explosive, Chemically Active or Toxic, Extreme Temperature or Pressures, Radioactive	Black text on yellow	Sample
Materials Inherently Low Hazard		
Liquid or Liquid Admixture (non-hazardous materials)	White text on green	Sample
Gas or Gaseous Admixture (non-hazardous materials)	White text on blue	Sample
Fire Quenching Materials		
Water, Foam, CO2, Halon, etc.	White text on red	Sample

Information on physical and chemical characteristics is based on tests we believe to be reliable. The values are intended only as a source of information and are given without guarantee and do not constitute a warranty. Purchasers should independently determine, prior to use, the suitability of this material for their specific application.

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