

## PRODUCT DATA SHEET

### Opti-Code™ Medical Gas Pipe Markers

- Easily identify medical gas pipes
- Durable self-adhesive vinyl for easy peel and stick application
- Self-adhesive pipe markers reduce the chance of error or confusion



**Description:** Opti-Code™ Medical Gas Pipe Markers are made of durable pressure-sensitive vinyl for protection against chemicals and weathering.

**Use:** Opti-Code™ Medical Gas Pipe Markers are designed to clearly mark pipes containing hazardous gas.

**Adhesive Type:** Self-adhesive

**Substrate Type:** Plastic film with clear overlamine.

**Compliance:** Markers conform to Compressed Gas Association Standard (CGA) C-9-1988 (R1993)

**Standard Legend Colors:** Black and White

**Standard Background Colors:** Black, Brown, Blue, Gray, Green, Orange, Purple, White, and Yellow

**Thickness (PSTC-33):** 0.005 in. (0.125mm.)

**Gloss:** 50 Gardner Units.

Standard Sizes/Dimensions:	Marker Size	Pipe Size	Size of Marker and Letter Height
	8SM	3/4" thru 1-3/8"	2-1/4" H x 8" L Color Field with 1/2" Letters
	12	2-1/2" thru 7-7/8"	2-1/4" H x 12" L Color Field with 1-1/4" Letters

**Adhesive Properties:** Adhesion to steel (PSTC-1)  
15 min. dwell (Avg)—20 oz/in. (19 N/100 mn)  
Ultimate (72 hrs. dwell) (Avg)—35 oz/in.(38 N/100)  
Tack (ASTM D-2979) (Avg)—750g (7.2 N)  
Drop shear (PSTC-7) (Avg.)—4 hrs.

**Minimum Application Temperature:** 50°F (10°C)

**Service Temperature:** -40°F to 248°F (-40°C to 120°C)

**Average Outdoor Durability:** 5 years (Average expected outdoor life of product will depend on user definition of failure and climatic conditions).

Date: \_\_\_ / \_\_\_ / \_\_\_ Job: \_\_\_\_\_

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### Opti-Code™ Medical Gas Pipe Markers (continued)

Chemical Resistance:	Reagent	7 day Immersion	Dip Test	Rub Test
	30% Sulfuric Acid	NE	NE	NE
	10% Sulfuric Acid	NE	NE	NE
	30% HCL	NE	NE	NE
	10% HCL	NE	NE	NE
	50% NaOH	F	NE	NE
	10% NaOH	F	NE	NE
	Acetic Acid	NE	NE	NE
	5% Acetic Acid	NE	NE	NE
	10% Ammonia	NE	NE	NE
	Methyl Ethyl Ketone	F	F	NE
	Acetone	F	F	NE
	Methanol	F	NE	NE
	1,1,1, Trichloroethane	F	F	NE
	IPA (Isopropanol)	F	NE	NE
	ASTM #3 Oil	NE	NE	NE
	SAE 20 Oil	NE	NE	NE
	Mineral Spirits	F	F	NE
	Diesel Fuel	F	NE	NE
	Heptane	F	NE	NE
	Toluene	F	F	NE
	Alconox	NE	NE	NE
	Kerosene	F	NE	NE
	20% Sodium Carbonate	NE	NE	NE
	2% Sodium Carbonate	NE	NE	NE
	10% NcCl	NE	NE	NE
	Bleach	NE	NE	NE
	Water	NE	NE	NE

NE: No Effect F: Failed

<b>7 Day Immersion:</b>	Immersed in reagent for 7 days.
<b>Dip Test:</b>	Five 10 minute dips in reagent with 30 minute recovery.
<b>Rub Test:</b>	Rubbed sample for one minute with swab soaked in reagent.
<b>Shelf Life:</b>	1 year when stored at 70°F (21°C) and 40% to 50% R.H.

Date: \_\_\_ / \_\_\_ / \_\_\_ Job: \_\_\_\_\_

Contractor \_\_\_\_\_