

Wrap-Around High Performance Pipe Markers (B-689)

Stick it to tough surfaces in harsh environments

- Durable polyester plus over-laminate withstands extreme temps and conditions
- Self-adhesive wrap-around style conquers rusty, dirty, wet or rough pipes
- Arrows included on every marker for flow identification



Description:	Wrap-Around High Performance Pipe Markers (B-689) are printed on durable polyester that is over-laminated to protect the printed text and graphics, secured around the pipe with self adhesive tape strips. For pipes with diameter sizes of 8" and greater, heavy duty nylon ties are supplied in place of self-adhesive tape strips for ease of installation.			
Use:	Wrap-Around High Performance Pipe Markers (B-689) are designed for use on dirty, oily, greasy, rough surfaced pipes. These are greatly recommended for applications in severe environmental conditions.			
Compliance:	ASME/ANSI A13.1			
Standard Letter Colors:	Black or White			
Standard Background Colors:	Blue, Brown, Green, Orange, Red, Gray, Purple, White, Black or Yellow			
Thickness (ASTM D 1593):	Total 0.007 in. (0.178mm.)			
Standard Sizes/Dimensions:	Style	Fits Pipe Outer Diameter	Length Color Field	Letter Height
	OO	Less than .7" (18mm)	4" (102mm)	.5" (13mm)
	O	.7" - 1.3" (18mm - 33mm)	8" (203mm)	.5" (13mm)
	I	1.4" - 2.4" (36mm - 61mm)	8" (203mm)	.75" (19mm)
	IISM	2.5" - 4.875" (64mm - 124mm)	12" (305mm)	1.3" (33mm)
	II	5" - 7.875" (127mm - 200mm)	12" (305mm)	1.3" (33mm)
	IIIST	8" - 10" (203mm - 254mm)	24" (610mm)	2.5" (63.5mm)
	IVST	Over 10" (254mm)	32" (813mm)	3.5" (89mm)
	HPHV (Carrier)	8" or larger (203mm)	24" (610mm)	2.5" (64mm)

Date: ____ / ____ / ____ Job: _____
Contractor: _____

Wrap-Around High Performance Pipe Markers (B-689) (Continued)

Gloss:	90 Gardner Units.
Abrasion Resistance:	CS-17 Wheels, 1000 g. wts.
(Method 5306 of U.S. Federal Test Method Std. No. 191A):	Legend withstands up to 700 cycles. Substrate withstands up to 1000 cycles.
Service Temperature:	-40°F to 248°F (-40°C to 120°C).
Average Outdoor Durability:	5-8 years (Average expected outdoor life of product will depend on user definition of failure, climactic conditions, mounting techniques, and material color).

Chemical Resistance:	Reagent	7 day Immersion	DipTest	RubTest
	30% Sulfuric Acid	NE	NE	NE
	10% Sulfuric Acid	NE	NE	NE
	30% HCL	NE	NE	NE
	10% HCL	NE	NE	NE
	50% NaOH	NE	NE	NE
	10% NaOH	NE	NE	NE
	10% NaCL	NE	NE	NE
	Methyl Ethyl Ketone	F	NE	NE
	Acetone	F	NE	NE
	Methanol	F	NE	NE
	1,1,1,Trichloroethane	F	NE	NE
	IPA (Isopropanol)	NE	NE	NE
	ASTM #3 Oil	NE	NE	NE
	SAE 20 Oil	NE	NE	NE
	Mineral Spirits	NE	NE	NE
	Diesel Fuel	NE	NE	NE
	Heptane	NE	NE	NE
	Toluene	NE	NE	NE
	Alconox	NE	NE	NE
	Kerosene	NE	NE	NE
	Bleach	NE	NE	NE
	Water	NE	NE	NE

NE: No Effect **F:** Failed

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