

M-2 Plastic THINSULATOR®

Sizes: 2- Through 48-inch



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■ M-2 Plastic THINSULATOR®
8", 10", 12" (4 Segments)

Description

The M-2 Plastic THINSULATOR® pipe insulator is a high-density, polyethylene product, injection molded to provide low cost insulators of highest quality. This high-density polyethylene gives the M-2 such strength that it is made more compact than other insulators.

Features

The flexible M-2 Plastic THINSULATOR conforms to the pipe for uniform coating loading. Its low friction coefficient enables it to slide easily inside the casing.

Electrical properties include its dielectric strength: short time, 1/8" thickness, 500 volts/.001 inches (D149-64).

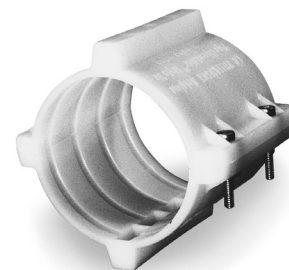
The casing insulator has robust mechanical properties. The tensile strength is rated at 4,000 psi at 20 inches/minute. Elongation is 25% at 20 inches/minute. It is resistant to impact fracture, with a notched toughness rating of 9 ft. lbs./in. (5 Joules/cm).

For best results, do not use above 120°F (50°C).

Options

The M-2 Plastic THINSULATORS are available in sizes 2" through 48".

Extra points are available for tightening, if needed to fit bare or coated pipe, for which a screwdriver is the only tool required.



■ M-2 Plastic THINSULATOR®
2", 3", 4" (2 Segments)



■ M-2 Plastic THINSULATOR®
6" (3 Segments)

Patented in the United States and in foreign countries.
ISO 9001 Certified

Toll Free
1-888-TDWmSon (839-6766)

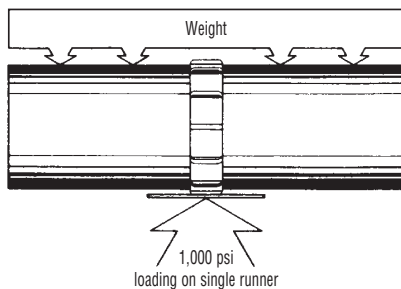


M-2 Plastic THINSULATOR®

M-2 THINSULATOR® Deflection Test

A 24" (600 mm) M-2 Plastic THINSULATOR was tested in compression to determine maximum loading without cold flow. THINSULATOR was mounted on 24" pipe and supported on a segment of 30" (750 mm) casing. Load was applied as shown below with approximately 1000lbs./sq. in. (6.89 MPa) on a single THINSULATOR runner. After 64 days, total cumulative deflection was 0.029" (0.74 mm). Maximum temperature during test: 105°F (40°C). Minimum temperature: 75°F (24°C). Test results prove that the same spacing may be used for M-2 THINSULATORS as used for steel runner-type insulators.

RECOMMENDED SPACING: 8 to 15 ft. (2.5 to 4.5 m) optional with customer - 10 ft. (3 m) is a good general rule based on coating protection during installation.



M-2 Plastic THINSULATOR®

Pipe Size			Weight		Carrier Pipe OD			
Inches	mm	Part Number	Lbs.	Kg.	Minimum		Maximum	
					Inches	mm	Inches	mm
2	50	11-0163-0001	3/4	.3	2-3/8	60	2-5/8	67
3	80	11-0163-0002	3/4	.3	3-1/2	89	3-3/4	95
4	100	11-0163-0003	1-1/4	.6	4-1/2	114	4-3/4	121
6	150	11-0163-0004	1-1/2	.7	6-5/8	168	7	178
8	200	11-0163-0005	2-1/2	1.1	8-5/8	219	9-1/8	232
10	250	11-0163-0006	3	1.4	10-3/4	273	11-1/8	283
12	300	11-0163-0007	3-1/2	1.6	12-3/4	324	13-1/4	337
14	350	11-0163-0009	3-3/4	1.7	14	356	14-1/2	368
16	400	11-0307-0001	5-3/4	2.6	16	406	16-1/2	419
18	450	11-0307-0002	6-1/2	3.0	18	457	18-1/2	470
20	500	11-0307-0003	7	3.2	20	508	20-1/2	521
22	550	11-0307-0004	7-3/4	3.5	22	559	22-1/2	572
24	600	11-0307-0005	8-1/2	3.9	24	610	24-1/2	622
26	650	11-0307-0006	9-1/4	4.2	26	660	26-1/2	673
28	700	11-0307-0007	9-3/4	4.4	28	711	28-1/2	724
30	750	11-0307-0008	10-1/2	4.8	30	762	30-1/2	775
32	800	11-0307-0009	11-1/2	5.2	32	813	32-1/2	826
34	850	11-0307-0010	12	5.4	34	864	34-1/2	876
36	900	11-0307-0011	12-1/2	5.7	36	914	36-1/2	927
48	1200	11-0307-0017	16-3/4	7.6	48	1219	48-1/2	1232

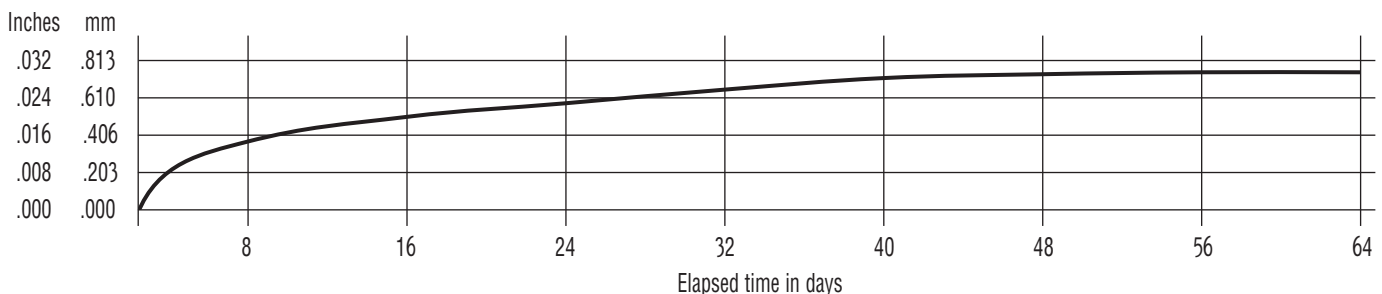
For other sizes, consult the factory.

Casing Clearance and ID

Pipe size	Min. Casing ID	Min. Casing Clearance*
2" and 3" (50 mm and 80 mm)	1-1/2" (38 mm) larger than coated pipe OD	1/4" (6mm)
4" through 14" (100 mm - 350mm)	1-3/4" (45 mm) larger than coated pipe OD	1/4" (6mm)
16" through 36" (400mm - 900 mm)	2-1/2" (64 mm) larger than coated pipe OD	1/2" (13mm)
48" (1200mm)	2-1/2" (64 mm) larger than coated pipe OD	1/2" (13mm)

*Difference in diameter of casing ID and maximum M-2 diameter.

M-2 THINSULATOR® Deflection Test — Time Vs. Deflection Curve



Max. deflection .029" (.737 mm) attained on 53rd day.