



LAST REVIEW DATE:
6/17/14

REVIEW CYCLE:
5 Years★

SPECIFICATION: G-8062-9

**TITLE: EXTRUDED POLYOLEFIN COATING ON
STEEL GAS PIPE**

VOLUME: 6

REVISION: (See ★)

- 1) Cover Page - Changed review cycle from 10 years to 5 years.
- 2) Section 4.0 - Updated Surface Preparation specification.



Gas Operations Standards

**TITLE: EXTRUDED POLYOLEFIN COATING ON
STEEL GAS PIPE**

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
1.0	SCOPE	2
2.0	MATERIALS	2
3.0	PRE-COATING INSPECTION	2
4.0	SURFACE PREPARATION	3
5.0	APPLICATION OF ADHESIVE	3
6.0	APPLICATION OF POLYOLEFIN	3
7.0	INPECTIONS AND COATING REPAIRS	4
8.0	HANDLING, STORAGE AND TRANSPORTION	5
9.0	PIPE MARKING	5
10.0	REFERENCES	5

ENVIRONMENTAL REVIEW BY: A. Liguori			SAFETY REVIEW BY: A. Liguori	
PREPARED BY:	APPROVED BY:	DATE:	VOLUME: 6	PAGE 1 OF
P. Carnevale	Liliana Gonzalez General Manager Technical Operations	9/16/09	Purchase and Test	5 PAGES



TITLE: EXTRUDED POLYOLEFIN COATING ON STEEL GAS PIPE

1.0 **SCOPE**

This specification covers the requirements for the mill (factory-applied) coating of steel gas pipe with extruded polyolefin and will be applicable to all pipe sizes.

2.0 **MATERIALS**

2.1 The following coating systems, with their associated materials, are approved for pipe less than and equal to 4 inches in diameter:

A) X-Tru: Bredero Price Co. **or**
Liberty Coating Company

- 1) Adhesive: A blend of rubber, asphalt and high molecular weight resins.
- 2) Polyolefin: High density polyethylene, opaque yellow color.

B) Pritec: Bredero Price Co. **or**
Liberty Coating Company

- 1) Adhesive: Butyl Rubber
- 2) Polyolefin: High density polyethylene, black color.

2.2 For pipe sizes 6 inches in diameter and larger, Pritec is the only approved coating system as per 2.1B.

2.3 Pipe manufactured by submerged-arc welding as per Purchase and Test Specification G-8107 shall only be coated using Pritec as per 2.1B.

3.0 **PRE-COATING INSPECTION**

All pipe shall be visually inspected for defects such as dents, gouges, grooves, and arc burns as per Specification G-8107 prior to applying any coating. Any defects found shall be reported to Con Edison's Purchasing Department. Any pipe length(s) in question shall not be coated.



NUMBER:	DATE:	VOLUME: 6	PAGE 2
G-8062-9	9/16/09	Purchase and Test	OF 5 PAGES



TITLE: EXTRUDED POLYOLEFIN COATING ON STEEL GAS PIPE

★ 4.0 **SURFACE PREPARATION**

The exterior of all pipe, prior to the application of the adhesive, shall be grit or sand blasted to a commercial gray metal finish in accordance with NACE/Steel Structures Painting Council - Surface Preparation Specification: NACE No. 3/SSPC-SP6.

5.0 **APPLICATION OF ADHESIVE**

5.1 After cleaning, the adhesive shall be applied to the exterior of the pipe so as to leave a uniform coating, with a minimum thickness of 10 mils, which completely covers the pipe surface to both ends.

5.2 The pipe shall be inspected for bare areas and other defects in the adhesive. If the inspection shows flooded areas, drips or that the adhesive has been applied over an improperly prepared surface, the length of pipe shall be re-cleaned and recoated.

6.0 **APPLICATION OF POLYOLEFIN**

6.1 The polyolefin shall be applied over the adhesive by extrusion.

6.2 The thickness of the polyolefin shall depend on the pipe size as follows:

<u>Nominal Pipe Diameter (Inches)</u>	<u>Polyolefin Thickness (Mils)</u>	
	<u>Nominal</u>	<u>Minimum</u>
3/4, 1, 1 1/2 2	25	23
	30	27

<u>Nominal Pipe Diameter (Inches)</u>	<u>Polyolefin Thickness (Mils)</u>	
	<u>Nominal</u>	<u>Minimum</u>
3, 4	35	32
6 to 10*	40	36
12 to 42*	60	54

*Pritec only



**TITLE: EXTRUDED POLYOLEFIN COATING ON
STEEL GAS PIPE**

6.0 APPLICATION OF POLYOLEFIN (Continued)

6.3 Unless otherwise specified the coating shall be cut back 6 inches from each end of the pipe length.

7.0 INSPECTIONS AND COATING REPAIRS

7.1 An electrical spark inspection, using an approved holiday detector, shall be made at the coating plant on all pipe coated, in accordance with this Specification and G-8201. The peak voltage of the detector shall be between 12,000 and 15,000 volts measured with the electrode in contact with the coated pipe.

7.2 The inspection in Section 7.1 shall be performed on all the coated pipe prior to the pipe being placed in storage or being shipped out, whichever is first. All defects found at this time shall be repaired by the Coater at his expense. The Coater shall furnish Con Edison's Purchasing Department written certification that the pipe has been inspected as per Section 3.0, that the coating has been applied and inspected in accordance with this specification, and that the pipe and coating are free of defects.

7.3 If the coated pipe is stored in the coating yard for a period exceeding one year, the inspection required by Section 7.1 shall be repeated just prior to shipment at the discretion of Con Edison's Purchasing Department. Repairs to defects found shall be made only after approval by Con Edison's Purchasing Department.

7.4 All coating repairs shall be done by one of the following methods:

- A) Completely remove all of the adhesive and polyolefin. Clean the pipe and apply new adhesive and polyolefin as per Sections 4.0, 5.0 and 6.0 above.
- B) Remove the damaged coating and install cold-applied primerless tape in accordance with the recommendations of the cold tape manufacturer and specification G-8209. Only the materials specified in Specification G-100,269 shall be used.



**TITLE: EXTRUDED POLYOLEFIN COATING ON
STEEL GAS PIPE**

8.0 HANDLING, STORAGE AND TRANSPORTATION

- 8.1 Handling, storage and transportation of the coated pipe shall be done in accordance with Specification G-8003.
- 8.2 Coating damage caused by improper handling, storage, or transportation of the coated pipe by the Coater or his agent shall be repaired at the Coater's expense, no matter how long the pipe has been in storage.
- 8.3 Each length of coated pipe shall be sealed at each end with a plastic vented end cap. These caps shall be installed such that they will not fall off during transportation, handling, and storage of the pipe.

9.0 PIPE MARKING

Each length of coated pipe shall be marked as per Specification G-8107.

10.0 REFERENCES

- | | | |
|-----------|---|---|
| G-8003 | - | Transportation, Handling and Storage of Steel Pipe for Gas Mains and Services |
| G-8107 | - | Steel Pipe for Gas Mains and Services |
| G-8201 | - | Electrical Spark Inspection of Coating on Steel Pipe |
| G-8209 | - | Field Coating of Steel Pipe and Fittings Installed Underground and in Subsurface Structures |
| G-100,269 | - | Cold-Applied Primerless Tape |