Technical information

Ocal PVC exterior coating chemical resistance

Solutions	Conc.	Temp. °C (F)	Recommended Exposure		
			Splashing	Liquid	Fumes
Acetic Acid	10%	49 (120)	no	no	no
Acid Copper Plating Solution		71 (160)	yes	yes	yes
Alkaline Cleaners		71 (160)	yes	yes	yes
Aluminum Chloride	Sat'd	71 (160)	yes	yes	yes
Aluminum Sulfate	Sat'd	71 (160)	yes	yes	yes
Alums	Sat'd	71 (160)	yes	yes	yes
Ammonium Chloride	Sat'd	71 (160)	yes	yes	yes
Ammonium Hydroxide	28%	49 (120)	yes	yes	yes
Ammonium Hydroxide	10%	49 (120)	yes	yes	yes
Ammonium Sulfate	Sat'd	71 (160)	yes	yes	yes
Ammonium Thiocyanate	Sat'd	71 (160)	yes	yes	yes
Amyl Alcohol	Any	32 (90)	yes	yes	yes
Arsenic Acids	Any	66 (150)	yes	yes	yes
Barium Sulfide	Sat'd	49 (120)	yes	yes	yes
Black Liquor	Sat'd	32 (90)	yes	yes	yes
Benzoic Acid	Sat'd	71 (160)	yes	yes	yes
Brass Plating Solution	Any	71 (160)	yes	yes	yes
Bromine Water	Sat'd	49 (120)	yes	yes	yes
Butyl Alcohol	Any	32 (90)	yes	yes	yes
Cadmium Plating Solution	Any	66 (150)	yes	yes	yes
Calcium Bisulfite	Any	66 (150)	yes	yes	yes
Calcium Chloride	Sat'd	71 (160)	yes	yes	yes
Calcium Hypochlorite	Sat'd	49 (120)	yes	yes	yes
Carbonic Acid	Sat'd	71 (160)	yes	yes	yes
Casein	Sat'd	32 (90)	yes	yes	yes
Castor Oil	Any	32 (90)	yes	yes	yes
Caustic Soda	35%	49 (120)	yes	yes	yes
Caustic Soda	10%	66 (150)	yes	yes	yes
Caustic Potash	35%	49 (120)	yes	yes	yes
Caustic Potash	10%	66 (150)	yes	yes	yes
Chlorine Water	Sat'd	32 (90)	yes	yes	yes
Chromium Plating Solution	Any	66 (150)	yes	yes	yes
Citric Acid	Sat'd	71 (160)	yes	yes	yes
Copper Chloride (Cupric)	Sat'd	71 (160)	yes	yes	yes
Copper Cyanide Plating Sol	Any	71 (160)	yes	yes	yes
(High Speed)	Any	82 (180)	yes	yes	yes
(with Alkali Cyanides)	Sat'd	71 (160)	yes	yes	yes
Copper Sulfate	Sat'd	71 (160)	yes	yes	yes
Coconut Oil	Sat'd	32 (90)	yes	yes	yes
Cottonseed Oil	Sat'd	32 (90)	yes	yes	yes
Disodium Phosphate	Sat'd	71 (160)	yes	yes	yes
Ethyl Alcohol	Any	32 (90)	yes	yes	yes
Ethylene Glycol	Any	32 (90)	yes	no	yes
Ferric Chloride	45%	49 (120)	yes	yes	yes
Ferrous Sulfate	Sat'd	66 (150)	yes	yes	yes
Fluoboric Acid	Any	66 (150)	yes	yes	yes
Formaldehyde	37%	49 (120)	yes	yes	yes
Formic Acid	85%	38 (100)	no	no	no
Gallic Acid	Sat'd	66 (150)	no	no	yes
Glucose	Any	66 (150)	yes	yes	yes
Glue	Any	66 (150)	yes	yes	yes
Glycerine	Any	32 (90)	yes	yes	yes

Solutions	Conc.	Temp. °C (F)	Recommended Exposure		
			Splashing	Liquid	Fumes
Gold Plating Solution	Any	66 (150)	yes	yes	yes
Hydrochloric Acid	10%	49 (120)	yes	no	yes
Hydrochloric Acid	21.50%	49 (120)	yes	no	yes
Hydrochloric Acid	37.50%	49 (120)	yes	no	yes
Hydrochloric Acid	37.50%	32 (90)	yes	no	yes
Hydrofluoric Acid	4%	60 (140)	yes	no	yes
Hydrofluoric Acid	10%	49 (120)	yes	no	yes
Hydrofluoric Acid	48%	49 (120)	yes	no	yes
Hydrogen Peroxide	30%	49 (120)	yes	yes	yes
Hydrogen Sulfide	Sat'd	49 (120)	yes	yes	yes
Hydroquinone	Any	32 (90)	yes	yes	yes
Indium Plating Solution	Any	66 (150)	yes	yes	yes
Lactic Acid	50%	49 (120)	yes	yes	yes
Lactic Acid	Any	32 (90)	yes	yes	yes
Lead Plating Solution	Any	66 (150)	yes	yes	yes
Malic Acid	Any	32 (90)	yes	yes	yes
Methyl Alcohol	Any	32 (90)	yes	yes	yes
Mineral Oils	Any	32 (90)	yes	yes	yes
Nickel Acetate	Sat'd	71 (160)	yes	yes	yes
Nickel Plating Solution		71 (160)	yes	yes	yes
Nickel Salts	Sat'd	71 (160)	yes	yes	yes
Nitric Acid	35%	49 (120)	yes	no	yes
Nitric Acid	40%	32 (90)	yes	no	yes
Nitric Acid	60%	49 (120)	yes	no	yes
Nitric Acid/	15%				
Hydrofluoric Acid	4%	60 (140)	yes	yes	yes
Nitric Acid/	16%				
Sodium Dichromate	13%	54 (130)	yes	yes	yes
Water	71%				
Oleic Acid	Any	32 (90)	yes	yes	yes
Oxalic Acid	Sat'd	49 (120)	yes	yes	yes
	Any	32 (90)	yes	yes	yes
Phenol	Sat'd	49 (120)	no	no	no
Phosphoric Acid	75%	66 (150)	yes	yes	yes
Phosphoric Acid	85%	49 (120)	yes	yes	yes
Phosphoric Acid	85%	71 (160)	yes	yes	yes
Potassium Acid Sulfate	Sat'd	66 (150)	yes	yes	yes
Potassium Antimonate	Sat'd	66 (150)	yes	yes	yes
Potassium Bisulfite	Sat'd	32 (90)	yes	yes	yes
Potassium Chloride	Sat'd	71 (160)	yes	yes	yes
Potassium Cuprocyanide	Sat'd	66 (150)	yes	yes	yes
Potassium Cyanide	Sat'd	71 (160)	yes	yes	yes
Potassium Diachromate	Sat'd	71 (160)	yes	yes	yes
Potassium Hypochlorite	Sat'd	32 (90)	yes	no	yes
Potassium Sulfide	Sat'd	66 (150)	yes	yes	yes
Potassium Thiosulfate	Sat'd	66 (150)	yes	yes	yes
Propyl Alcohol	Sat'd	66 (150)	yes	yes	yes
Rhodium Plating Solution	Sat'd	66 (150)	yes	yes	yes
Silver Plating Solution	Sat'd	66 (150)	yes	yes	yes
Soaps	Any	32 (90)	yes	yes	yes
Sodium Acid Sulfate	Sat'd	71 (160)	yes	yes	yes
Sodium Antimonate	Sat'd	66 (150)	yes	yes	yes

Technical information

Ocal PVC exterior coating chemical resistance (continued)

Solutions	Conc.	Temp. °C (F)	Recommended Exposure Splashing	Liquid	Fumes
Sodium Bicarbonate	Sat'd	71 (160)	yes	yes	yes
Sodium Bisulfite	Sat'd	32 (90)	yes	yes	yes
Sodium Chloride	Sat'd	71 (160)	yes	yes	yes
Sodium Cyanide	Sat'd	71 (160)	yes	yes	yes
Sodium Dichromate	Sat'd	71 (160)	yes	yes	yes
Sodium Hydroxide	10%	66 (150)	yes	no	yes
Sodium Hydroxide	35%	49 (120)	yes	no	yes
Sodium Hydroxide	73%	71 (160)	no	no	no
Sodium Hypochlorite	Sat'd	32 (90)	yes	no	yes
Sodium Hypochlorite	15%	49 (120)	yes	no	yes
Sodium Sulfide	Sat'd	66 (150)	yes	yes	yes
Sodium Thiosulfate	Sat'd	66 (150)	yes	yes	yes
Sulfuric Acid	15%	49 (120)	yes	yes	yes
Sulfuric Acid	15%	71 (160)	yes	yes	yes
Sulfuric Acid	50%	49 (120)	yes	yes	yes
Sulfuric Acid	70%	32 (90)	yes	no	yes
Sulfuric Acid	98%	38 (100)	no	no	yes
Sulfurous Acid	2%	49 (120)	yes	no	yes
Sulfurous Acid	6%	49 (120)	yes	no	yes
Tannic Acid	Sat'd	32 (90)	yes	yes	yes
Tartaric Acid	Sat'd	32 (90)	yes	yes	yes
Tin Chloride Aqueous	Sat'd	66 (150)	yes	yes	yes
Tin Plating Solution	Sat'd	66 (150)	yes	yes	yes
Triethaneolamine	Sat'd	66 (150)	yes	yes	yes
Trisodium Phosphate	Sat'd	66 (150)	yes	yes	yes
Water	Sat'd	71 (160)	yes	yes	yes
White Liquor		32 (90)	yes	yes	yes
Zinc Plating Solution		71 (160)	yes	yes	yes
Zinc Sulfate	Sat'd	71 (160)	yes	yes	yes

Ocal urethane interior coating chemical resistance

Solutions	Conc.	Temp. °C (F)	Recommended Exposure Splashing	Liquid	Fumes
Acetic Acid	10%	24 (75)	yes	no	yes
Acid Copper Plating Solution	Any	24 (75)	yes	no	yes
Alkaline Cleaners	Any	24 (75)	yes	no	yes
Aluminum Chloride	Sat'd	24 (75)	yes	no	yes
Aluminum Sulfate	Sat'd	24 (75)	yes	no	yes
Alums	Sat'd	24 (75)	yes	no	yes
Ammonium Chloride	Sat'd	24 (75)	yes	no	yes
Ammonium Hydroxide	28%	24 (75)	yes	no	yes
Ammonium Hydroxide	10%	24 (75)	yes	no	yes
Ammonium Sulfate	Sat'd	24 (75)	yes	no	yes
Ammonium Thiocyanate	Sat'd	24 (75)	yes	no	yes
Amyl Alcohol	Any	24 (75)	yes	yes	yes
Arsenic Acids	Any	24 (75)	yes	no	yes
Barium Sulfide	Sat'd	24 (75)	yes	no	yes
Black Liquor	Sat'd	24 (75)	yes	no	yes
Benzoic Acid	Sat'd	24 (75)	yes	no	yes
Brass Plating Solution	Any	24 (75)	yes	no	yes
Bromine Water	Sat'd	24 (75)	yes	no	yes
Butyl Alcohol	Any	24 (75)	yes	no	yes
Cadmium Plating Solution	Any	24 (75)	yes	no	yes
Calcium Bisulfite	Any	24 (75)	yes	no	yes
Calcium Chloride	Sat'd	24 (75)	yes	no	yes
Calcium Hypochlorite	Sat'd	24 (75)	yes	no	yes
Carbonic Acid	Sat'd	24 (75)	yes	no	yes
Casein	Sat'd	24 (75)	yes	no	yes
Castor Oil	Any	24 (75)	yes	yes	yes
Caustic Soda	35%	24 (75)	yes	no	yes
Caustic Soda	10%	24 (75)	yes	no	yes
Caustic Potash	35%	24 (75)	yes	no	yes
Caustic Potash	10%	24 (75)	yes	no	yes
Chlorine Water	Sat'd	24 (75)	yes	no	yes
Chromium Plating Solution	Any	24 (75)	yes	no	yes
Citric Acid	Sat'd	24 (75)	yes	no	yes
Copper Chloride (Cupric)	Sat'd	24 (75)	yes	no	yes
Copper Cyanide Plating Sol	Any	24 (75)	yes	no	yes
(High Speed)	Any	24 (75)	yes	no	yes
(with Alkali Cyanides)	Sat'd	24 (75)	yes	no	yes
Copper Sulfate	Sat'd	24 (75)	yes	no	yes
Coconut Oil	Sat'd	24 (75)	yes	yes	yes
Cottonseed Oil	Sat'd	24 (75)	yes	yes	yes
Disodium Phosphate	Sat'd	24 (75)	yes	no	yes
Ethyl Alcohol	Any	24 (75)	yes	no	yes
Ethylene Glycol	Any	24 (75)	yes	yes	yes
Ferric Chloride	45%	24 (75)	yes	no	yes
Ferrous Sulfate	Sat'd	24 (75)	yes	no	yes
Fluoboric Acid	Any	24 (75)	yes	no	yes
Formaldehyde	37%	24 (75)	yes	no	yes
Formic Acid	85%	24 (75)	yes	no	yes
Gallic Acid	Sat'd	24 (75)	yes	no	yes
Glucose	Any	24 (75)	yes	yes	yes
Glue	Any	24 (75)	yes	no	yes
Glycerine	Any	24 (75)	yes	yes	yes
Gold Plating Solution	Any	24 (75)	yes	no	yes
Hydrochloric Acid	10%	24 (75)	yes	no	yes
Hydrochloric Acid	21.50%	24 (75)	yes	no	yes
Hydrochloric Acid	37.50%	24 (75)	yes	no	yes

Technical information

Ocal urethane interior coating chemical resistance (continued)

Solutions	Conc.	Temp. °C (F)	Recommended Exposure Splashing	Liquid	Fumes
Hydrofluoric Acid	4.00%	24 (75)	yes	no	yes
Hydrofluoric Acid	10%	24 (75)	yes	no	yes
Hydrofluoric Acid	48%	24 (75)	yes	no	yes
Hydrogen Peroxide	30%	24 (75)	yes	no	yes
Hydrogen Sulfide	Sat'd	24 (75)	yes	no	yes
Hydroquinone	Any	24 (75)	yes	no	yes
Indium Plating Solution	Any	24 (75)	yes	no	yes
Lactic Acid	50%	24 (75)	yes	no	yes
Lactic Acid	Any	24 (75)	yes	no	yes
Lead Plating Solution	Any	24 (75)	yes	no	yes
Malic Acid	Any	24 (75)	yes	no	yes
Methyl Alcohol	Any	24 (75)	yes	no	yes
Mineral Oils	Any	24 (75)	yes	yes	yes
Nickel Acetate	Sat'd	24 (75)	yes	no	yes
Nickel Plating Solution		24 (75)	yes	no	yes
Nickel Salts	Sat'd	24 (75)	yes	no	yes
Nitric Acid	35%	24 (75)	yes	no	yes
Nitric Acid	40%	24 (75)	yes	no	yes
Nitric Acid	60%	24 (75)	yes	no	yes
Nitric Acid/	15%				
Hydrofluoric Acid	4%	24 (75)	yes	no	yes
Nitric Acid/	16%				
Sodium Dichromate	13%	24 (75)	yes	no	yes
Water	71%				
Oleic Acid	Any	24 (75)	yes	no	yes
Oxalic Acid	Sat'd	24 (75)	yes	no	yes
	Any	24 (75)	yes	no	yes
Phenol	Sat'd	24 (75)	yes	no	yes
Phosphoric Acid	75%	24 (75)	yes	no	yes
Phosphoric Acid	85%	24 (75)	yes	no	yes
Potassium Antimonate	Sat'd	24 (75)	yes	no	yes
Potassium Bisulfite	Sat'd	24 (75)	yes	no	yes
Potassium Chloride	Sat'd	24 (75)	yes	no	yes
Potassium Cuprocyanide	Sat'd	24 (75)	yes	no	yes
Potassium Cyanide	Sat'd	24 (75)	yes	no	yes
Potassium Diachromate	Sat'd	24 (75)	yes	no	yes
Potassium Hypochlorite	Sat'd	24 (75)	yes	no	yes

Solutions	Conc.	Temp. °C (F)	Recommended Exposure Splashing	Liquid	Fumes
Potassium Sulfide	Sat'd	24 (75)	yes	no	yes
Potassium Thiosulfate	Sat'd	24 (75)	yes	no	yes
Propyl Alcohol	Sat'd	24 (75)	yes	no	yes
Rhodium Plating Solution	Sat'd	24 (75)	yes	no	yes
Silver Plating Solution	Sat'd	24 (75)	yes	no	yes
Soaps	Any	24 (75)	yes	no	yes
Sodium Acid Sulfate	Sat'd	24 (75)	yes	no	yes
Sodium Antimonate	Sat'd	24 (75)	yes	no	yes
Sodium Bicarbonate	Sat'd	24 (75)	yes	no	yes
Sodium Bisulfite	Sat'd	24 (75)	yes	no	yes
Sodium Chloride	Sat'd	24 (75)	yes	no	yes
Sodium Cyanide	Sat'd	24 (75)	yes	no	yes
Sodium Dichromate	Sat'd	24 (75)	yes	no	yes
Sodium Hydroxide	10%	24 (75)	yes	no	yes
Sodium Hydroxide	35%	24 (75)	yes	no	yes
Sodium Hydroxide	73%	24 (75)	yes	no	yes
Sodium Hypochlorite	Sat'd	24 (75)	yes	no	yes
Sodium Hypochlorite	15%	24 (75)	yes	no	yes
Sodium Sulfide	Sat'd	24 (75)	yes	no	yes
Sodium Thiosulfate	Sat'd	24 (75)	yes	no	yes
Sulfuric Acid	15%	24 (75)	yes	no	yes
Sulfuric Acid	50%	24 (75)	yes	no	yes
Sulfuric Acid	70%	24 (75)	yes	no	yes
Sulfuric Acid	98%	24 (75)	yes	no	yes
Sulfurous Acid	2%	24 (75)	yes	no	yes
Sulfurous Acid	6%	24 (75)	yes	no	yes
Tannic Acid	Sat'd	24 (75)	yes	no	yes
Tartaric Acid	Sat'd	24 (75)	yes	no	yes
Tin Chloride Aqueous	Sat'd	24 (75)	yes	no	yes
Tin Plating Solution	Sat'd	24 (75)	yes	no	yes
Triethaneolamine	Sat'd	24 (75)	yes	no	yes
Trisodium Phosphate	Sat'd	24 (75)	yes	no	yes
Water	Sat'd	24 (75)	yes	no	yes
White Liquor		24 (75)	yes	no	yes
Zinc Plating Solution		24 (75)	yes	no	yes
Zinc Sulfate	Sat'd	24 (75)	yes	no	yes

Technical information

Ocal guide specification:
Section 26 05 33 — Underground ducts and raceways for electrical systems: Conduit systems for use in corrosive environments

Part 1 – General

1.1 Summary

A. Section Includes: Furnishing, installation and assembly of PVC-coated electrical rigid metal conduit (ERMC) systems and stainless steel fittings.
B. Related Sections
   1. Section 26 05 29 – Hangers and Supports for Electrical Systems

1.2 References

A. National Electrical Manufacturers Association (NEMA)
   1. NEMA RN 1: Polyvinyl-Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit
B. National Fire Protection Association (NFPA)
   1. NFPA 70: National Electrical Code® (NEC®)
C. American Society for Testing and Materials (ASTM):
   1. ASTM A 239: Standard Practice for Locating the Thinnest Spot in a Zinc (Galvanized) Coating on Iron or Steel Articles
D. Underwriters Laboratories, Inc. (UL)
   1. UL 6: Safety Standard for Rigid Metal Conduit
   2. UL 514B: Safety Standard for Fittings for Conduit and Outlet Boxes
E. American National Standards Institute (ANSI)
   1. ANSI C80.1: American National Standard for Rigid Steel Conduit – Zinc Coated
G. Steel Tube Institute of North America
   1. Guidelines for Installing Steel Conduit/Tubing

1.3 Submittals

A. General: Submit in accordance with Section 01 33 00.
B. Product Data
   1. Manufacturer's descriptive literature and product specifications for each product.
   2. Manufacturer's installation literature and training guide.
   3. Manufacturer's product drawings, when applicable.

1.4 Quality Assurance

A. Manufacturer Qualifications: Products shall be free of defects in material and workmanship.
B. Installer Qualifications: Installer shall be trained and certified based on the acceptable manufacturer's listed requirements.

Part 2 – Products

2.1 General

A. Furnish PVC-coated ERMC of size as indicated. If not indicated, the smallest trade size shall be 3/4 in. (19.05 mm) The PVC-coated ERMC system shall include necessary PVC-coated fittings, boxes and covers to form a complete encapsulated system.

2.2 Manufacturers

A. Acceptable Manufacturers: ABB Corporation; 8155 T & B Blvd., Memphis, TN 38125. Tel: 901-252-5000. Web: www.tnb.com.
B. Substitutions: Not permitted.
C. Requests for substitutions will be considered in accordance with provisions of Section 01 25 00.

1.3 Materials/Components

A. Pvc-coated rigid steel conduit

The PVC-coated rigid steel conduit shall be hot dip galvanized inside and out with hot-dip galvanized threads. The interior galvanizing shall be listed per UL 6. The exterior galvanizing shall be listed per UL 6 as primary corrosion protection. Thread protectors shall be used on the exposed threads of the PVC-coated conduit. PVC-coated ERMC steel conduit shall comply with UL 6, ANSI C80.1 and NEMA RN 1 standards without exception.

The PVC coating, in compliance with NEMA RN 1, shall be nominal 40 mils (0,04 in.) in thickness continuous over the entire length of the conduit except at the threads and be free of blisters, bubbles or pinholes. PVC shall be UL listed as a primary corrosion protection.

A blue urethane coating shall be uniformly and consistently applied to the interior of conduit. This internal coating shall be a nominal 2 mils (0,002 in.) thickness. All male threads on elbows and nipples shall be protected by this same application of urethane coating.

Coated couplings shall be used with coated conduit. The thickness of the coating on couplings shall be at least equal to the thickness of the coating on the conduit. Each coated coupling shall have a flexible PVC sleeve which extends from each end of the coupling and which will overlap the PVC coating on the conduit when the coupling has been installed on the conduit.

Technical information

Ocal guide specification (continued):

The length of the sleeve extension(s) shall be at least equivalent to the nominal conduit size for sizes up through 2 in. For sizes 2–6 in., the length of the sleeve extension(s) shall be at least 2 in. The PVC sleeve shall be a nominal thickness of 40 mils in thickness. The inside diameter of the overlapping sleeve shall be less than the outside diameter of the PVC-coated conduit.

The PVC coating, in compliance with NEMA RN 1, shall be nominal 40 mils (0.04 in.)s in thickness continuous over the entire length of the conduit except at the threads and be free of blisters, bubbles or pinholes. PVC shall be UL listed as a primary corrosion protection.

A blue urethane coating shall be uniformly and consistently applied to the interior of conduit. This internal coating shall be a nominal 2 mils (0.002 in.) thickness. All male threads on elbows and nipples shall be protected by this same application of urethane coating.

Coated couplings shall be used with coated conduit. The thickness of the coating on couplings shall be at least equal to the thickness of the coating on the conduit. Each coated coupling shall have a flexible PVC sleeve which extends from each end of the coupling and which will overlap the PVC coating on the conduit when the coupling has been installed on the conduit.

B. PVC-coated rigid steel conduit

The PVC-coated ERMC aluminum conduit prior to coating shall be UL listed. The exterior of the conduit shall have a PVC coating of a minimum thickness of nominal 40 mils (0.04 in.).

A blue urethane coating shall be uniformly and consistently applied to the interior of conduit. This internal coating shall be a nominal 2 mils (0.002 in.) thickness. All male threads on elbows and nipples shall be protected by this same application of urethane coating.

Coated couplings shall be used with coated conduit. The thickness of the coating on couplings shall be at least equal to the thickness of the coating on the conduit. Each coated coupling shall have a flexible PVC sleeve which extends from each end of the coupling and which will overlap the PVC coating on the conduit when the coupling has been installed on the conduit. The length of the sleeve extension(s) shall be at least equivalent conduit size for sizes up through 2 in. For sizes 2–6 in., the length of the sleeve extension(s) shall be at least 2 in. The PVC sleeve shall be a nominal thickness of 40 mils (0.04 in.) in thickness. The inside diameter of the overlapping sleeve shall be less than the outside diameter of the PVC-coated conduit.

C. PVC-coated ordinary location fittings

PVC-coated ferrous and aluminum fittings for general service and corrosive locations must be UL listed. The PVC coating shall be minimum 40 mils in thickness and be free of blisters, bubbles or pinholes. Female threads on fittings shall be protected by application of urethane coating.

All female ends of PVC-coated conduit fittings shall have a flexible PVC sleeve which extends from the female ends of the fitting and which will overlap the PVC coating on the conduit when the fitting has been installed on the conduit. The length of the sleeve extension(s) shall be at least equivalent to the nominal conduit size for sizes up through 2 in. For sizes 2–6 in., the length of the sleeve extension(s) shall be at least 2 in. The PVC sleeve shall be a nominal thickness of 40 mils (0.04 in.) in thickness. The inside diameter of the overlapping sleeve shall be less than the outside diameter of the PVC-coated conduit.

1. The PVC coating on all form 8 covers shall form a gasketlike flange of at least 5/16 in. wide and minimum 40 mils (0.04 in.) covering the top of the fitting around the opening and the bottom of the cover/matting with the flange of the fitting. A blue urethane coating shall be uniformly and consistently applied to the interior, exterior and threads of all conduit bodies, including but not limited to form 8 and form 7 conduit bodies. This coating shall be a nominal 2 mils thickness. Stainless steel encapsulated screws shall be Supplied with all form 7 and form 8 fittings.

Technical information

Ocal guide specification (continued):

2. Rigid hubs shall have a nominal 40 mils (0.04 in.) PVC coating thickness with a nominal 2 mils of blue urethane on interior and threads. The male threads and locknut shall remain uncoated.
3. Liquidtight fittings shall have an exterior PVC coating of a minimum thickness of nominal 40 mils (0.04 in.).

D. PVC-coated hazardous location fittings
Hazardous location fittings prior to PVC coating must be UL listed. All female ends of PVC-coated conduit fittings shall have a flexible PVC sleeve which extends from the female ends of the fitting and which will overlap the PVC coating on the conduit when the fitting has been installed on the conduit. The length of the sleeve extension(s) shall be at least equivalent to the nominal conduit size for sizes up through 2 in. For sizes 2–6 in., the length of the sleeve extension(s) shall be at least 2 in. The PVC sleeve shall be a nominal thickness of 40 mils (0.04 in.) in thickness. The inside diameter of the overlapping sleeve shall be less than the outside diameter of the PVC-coated conduit.

E. PVC-coated strut, hangers and clamps
Right-angle beam clamps and U-bolts shall be specially formed and sized to fit snugly the outside diameter of the PVC-coated conduit. Support products such as ferrous strut, beam clamps, pipe straps, clamp back spacers, conduit clamp hangers and all-thread rods shall have a minimum 15 mils (0.015 in.) PVC coating by the manufacturer of the ERMC conduit and system components.

F. Stainless steel fittings
Stainless steel liquid-tight fittings shall be made of 304-grade stainless steel or better.

G. Stainless steel strut, hangers, etc.
Stainless steel strut, beam clamps, pipe straps, clamp back spacers, conduit clamp hangers and all-thread rods shall be made of 304-grade stainless steel or better.

Part 3 – Execution

3.1 Examination

A. The PVC-coated ERMC and system components have been selected for use in an atmosphere considered to be corrosive for this project. The corrosive atmosphere is considered to be more damaging than merely the presence of moisture. Accordingly, conduit and the corresponding fittings for it must have PVC protection as described under Part 2 – Products. Conduit and fittings that are merely galvanized for this purpose are insufficient.

3.2 Preparation

A. Preparation shall be done in accordance with manufacturer's printed instructions.

3.3 Installation

A. Install in accordance with manufacturer's printed instructions and manufacturer's installation training.

3.4 Quality control

A. General:
Comply with requirements of Section 01 45 13.

3.5 Manufacturer's field services

A. Free on-site installation training course by company representative. This representative must conduct the on-site training course in order to qualify for the installation certificate. The time required for this training is estimated to be two (2) hours.
B. After the on-site training installation, the representative shall then register the installer in his database and provide certification for installation.

End of section

Notes

1. Ocal PVC-coated conduit and fittings are not recommended for use in areas where they will be exposed to sustained temperatures above 200 °F (93°C)or exposed to fire. Prolonged exposure to heat greater than 200°F (93°C) or exposure to fire may cause the plastic coatings to release harmful emissions, posing a potential health hazard to persons subjected to such emissions.
2. If subjected to sustained flame or sustained heat above 400 °F (204°C), PVC will burn. PVC is self-extinguishing at room temperature.