# Ocal PVC exterior coating chemical resistance

Solution(*Cr)Solution(*Cr)%Ci (*C)%Eshello (*C)<			Temp.	Recommended Exposure					Temp.	Recommended Exposure			
Acete Acid         10%         40 (20)         no         no         no         Red Copper Plants Solution         No         64 (20)         yes	Solutions	Conc.	°C (F)	Splashing	Liquid	Fumes	Solutions	Conc.	°C (F)	Splashing	Liquid	Fumes	
Acid CopenPlating Solution71 (160yrs <t< td=""><td>Acetic Acid</td><td>10%</td><td>49 (120)</td><td>no</td><td>no</td><td>no</td><td>Gold Plating Solution</td><td>Any</td><td>66 (150)</td><td>yes</td><td>yes</td><td>yes</td></t<>	Acetic Acid	10%	49 (120)	no	no	no	Gold Plating Solution	Any	66 (150)	yes	yes	yes	
Alkaline Clashers71 (160)yes <td>Acid Copper Plating Solution</td> <td></td> <td>71 (160)</td> <td>yes</td> <td>yes</td> <td>yes</td> <td>Hydrochloric Acid</td> <td>10%</td> <td>49 (120)</td> <td>yes</td> <td>no</td> <td>yes</td>	Acid Copper Plating Solution		71 (160)	yes	yes	yes	Hydrochloric Acid	10%	49 (120)	yes	no	yes	
Aluminur bloride         Saft 7         1	Alkaline Cleaners		71 (160)	yes	yes	yes	Hydrochloric Acid	21.50%	49 (120)	yes	no	yes	
AummonsUnifiet         Sart         71 (160)         yes	Aluminum Chloride	Sat'd	71 (160)	yes	yes	yes	Hydrochloric Acid	37.50%	49 (120)	yes	no	yes	
Alums         Sat/d         7.1 (10)         yes         yes <t< td=""><td>Aluminum Sulfate</td><td>Sat'd</td><td>71 (160)</td><td>yes</td><td>yes</td><td>yes</td><td>Hydrochloric Acid</td><td>37.50%</td><td>32 (90)</td><td>yes</td><td>no</td><td>yes</td></t<>	Aluminum Sulfate	Sat'd	71 (160)	yes	yes	yes	Hydrochloric Acid	37.50%	32 (90)	yes	no	yes	
Ammonium Chionide         Sati d         71 (160)         yes         yes <td>Alums</td> <td>Sat'd</td> <td>71 (160)</td> <td>yes</td> <td>yes</td> <td>yes</td> <td>Hydrofluoric Acid</td> <td>4%</td> <td>60 (140)</td> <td>yes</td> <td>no</td> <td>yes</td>	Alums	Sat'd	71 (160)	yes	yes	yes	Hydrofluoric Acid	4%	60 (140)	yes	no	yes	
Ammonium Hydroxide         284         49 (20)         yes         yes         yes         yes         hydrogen Peroxide         30%         49 (20)         yes         yes         yes           Ammonium Mydroxide         10%         9 (10)         yes	Ammonium Chloride	Sat'd	71 (160)	yes	yes	yes	Hydrofluoric Acid	10%	49 (120)	yes	no	yes	
Ammonium Hydroxide         10%         49(212)         yes	Ammonium Hydroxide	28%	49 (120)	yes	yes	yes	Hydrofluoric Acid	48%	49 (120)	yes	no	yes	
Ammonium Sulfate         Sat'd         71 (160)         yes         yes         yes         hydrogen Sulfide         Sat'd         92 (30)         yes         yes         yes           Ammonium Thiozyanate         Sat'd         71 (160)         yes	Ammonium Hydroxide	10%	49 (120)	yes	yes	yes	Hydrogen Peroxide	30%	49 (120)	yes	yes	yes	
Ammonium Thiozyanate         Safe 71 (160)         yes         yes         yes         hydroquinone         Any 32 (20)         yes         yes         yes           AmylAlcohol         Any 66 (150)         yes	Ammonium Sulfate	Sat'd	71 (160)	yes	yes	yes	Hydrogen Sulfide	Sat'd	49 (120)	yes	yes	yes	
Amyl Acholol       Any       32 (00)       yes       yes <td>Ammonium Thiocyanate</td> <td>Sat'd</td> <td>71 (160)</td> <td>yes</td> <td>yes</td> <td>yes</td> <td>Hydroquinone</td> <td>Any</td> <td>32 (90)</td> <td>yes</td> <td>yes</td> <td>yes</td>	Ammonium Thiocyanate	Sat'd	71 (160)	yes	yes	yes	Hydroquinone	Any	32 (90)	yes	yes	yes	
ArsenicAcidis       Any       66 (150)       yes       yes </td <td>Amyl Alcohol</td> <td>Any</td> <td>32 (90)</td> <td>yes</td> <td>yes</td> <td>yes</td> <td>Indium Plating Solution</td> <td>Any</td> <td>66 (150)</td> <td>yes</td> <td>yes</td> <td>yes</td>	Amyl Alcohol	Any	32 (90)	yes	yes	yes	Indium Plating Solution	Any	66 (150)	yes	yes	yes	
Barium Sulfide         Satid         43 (20)         yes	Arsenic Acids	Any	66 (150)	yes	yes	yes	Lactic Acid	50%	49 (120)	yes	yes	yes	
Black Liquor         Sat'd         32 (90)         yes	Barium Sulfide	Sat'd	49 (120)	yes	yes	yes	Lactic Acid	Any	32 (90)	yes	yes	yes	
Benzoic Acid         Sat'd         71 (160)         yes	Black Liquor	Sat'd	32 (90)	yes	yes	yes	Lead Plating Solution	Any	66 (150)	yes	yes	yes	
Brass Plating Solution         Any         71 (160)         yes         yes         yes         Methyl Alcohol         Any         32 (90)         yes         yes         yes           Bromine Water         Sat'd         44 (120)         yes         yes         yes         Mineral Oiis         Any         32 (90)         yes         yes         yes         Mickel Acctate         Sat'd         71 (160)         yes         yes         yes         Nickel Sats         Sat'd         71 (160)         yes         yes         Nickel Acctate         Sat'd         49 (120)         yes         yes         Nickel Acctate         Sat'd         49 (120)         yes         yes         Nickel Acctate         Sat'd         49 (120)         yes         yes         Nes         Yes         Yes         Nickel Acctate         Sat'd         40 (120)         yes	Benzoic Acid	Sat'd	71 (160)	yes	yes	yes	Malic Acid	Any	32 (90)	yes	yes	yes	
Bromine Water         Sat'd         49 (120)         yes         yes         yes         Nex           Butyl Alcohol         Any         32 (90)         yes         yes         yes         Nickel Acetate         Sat'd         71 (160)         yes         ys	Brass Plating Solution	Any	71 (160)	yes	yes	yes	Methyl Alcohol	Any	32 (90)	yes	yes	yes	
Butyl Alcohol         Any         32 (90)         yes         yes         yes         Nickel Acetate         Satid         71 (160)         yes         yes         yes           Cadmium Pitting Solution         Any         66 (150)         yes         yes         yes         Nickel Plating Solution         71 (160)         yes         yes         yes           Calcium Bixulfte         Any         66 (150)         yes         yes         yes         Nitric Acid         35%         49 (120)         yes         yes         yes           Calcium Bixulfte         Satid         49 (120)         yes         yes         yes         Nitric Acid         40%         32 (90)         yes         no         yes           Castor Oli         Any         32 (90)         yes         yes         yes         Nitric Acid         15%         49 (120)         yes         yes         yes         Nitric Acid         16%         Castor Oli (160 (140)         yes	Bromine Water	Sat'd	49 (120)	yes	yes	yes	Mineral Oils	Any	32 (90)	yes	yes	yes	
Cadmium Plating Solution         Any         66 (150)         yes         ye	Butyl Alcohol	Any	32 (90)	ves	ves	ves	Nickel Acetate	Sat'd	71 (160)	ves	ves	ves	
Calcium Bisuffite         Any         66 (150)         yes	Cadmium Plating Solution	Anv	66 (150)	ves	ves	ves	Nickel Plating Solution		71 (160)	ves	ves	ves	
Calcium Chloride         Sat'd         71 (160)         yes         yes         yes         yes         yes         yes         yes         yes         yes         no         yes         yes         Nitric Acid         15%         49 (120)         yes         yes         yes         Nitric Acid         15%         49 (120)         yes	Calcium Bisulfite	Anv	66 (150)	ves	ves	ves	Nickel Salts	Sat'd	71 (160)	ves	ves	ves	
Calcium Hypochlorite         Sat'd         49 (120)         yes         yes         yes         yes         yes         Nitric Acid         40 (0.20)         yes         no         yes         yes         no         yes	Calcium Chloride	Sat'd	71 (160)	ves	ves	ves	Nitric Acid	35%	49 (120)	ves	no	ves	
Carbonic Acid         Satd 7 (1(60)         yes         yes         yes         Nitric Acid         60% 49 (120)         yes         no         yes           Casein         Satd 3 (200)         yes         yes         yes         yes         Nitric Acid         60% 49 (120)         yes         yes         yes           Castonic Soda         35% 49 (120)         yes         yes         yes         Yes         Nitric Acid         16%         yes         yes         yes           Caustic Soda         10% 66 (150)         yes         yes         yes         yes         Yes         Ves         Yes	Calcium Hypochlorite	Sat'd	49 (120)	ves	ves	ves	Nitric Acid	40%	32 (90)	ves	no	ves	
Casein         Satd         32 (90)         yes         yes         yes         Nitri Acid/         15 (20)         yes         yes         yes           Castor Oil         Any         32 (90)         yes         yes         yes         Hydrofluoric Acid         4%         60 (140)         yes         yes         yes           Caustic Soda         10%         66 (150)         yes         yes         yes         Nitric Acid/         16%            Caustic Soda         10%         66 (150)         yes         yes         yes         Nater         716            Caustic Potash         10%         66 (150)         yes         y	Carbonic Acid	Sat'd	71 (160)	ves	Ves	Ves	Nitric Acid	60%	49 (120)	ves	no	Ves	
Castor Oil         Any         32 (90)         yes	Casein	Sat'd	32 (90)	ves	ves	ves	Nitric Acid/	15%	(120)	,			
Caustic Soda         35%         49 (120)         yes	Castor Oil	Anv	32 (90)	ves	ves	ves	Hydrofluoric Acid	4%	60 (140)	ves	ves	ves	
Caustic Soda       10% 66 (150)       yes       ye	Caustic Soda	35%	49 (120)	ves	ves	ves	Nitric Acid/	16%	00(2.0)	,	,		
Caustic Potash         35%         49 (120)         yes         yes         yes         Water         71%           Caustic Potash         10%         66 (150)         yes         yes         yes         Water         71%           Caustic Potash         10%         66 (150)         yes         yes         yes         Oleic Acid         Any         32 (90)         yes         yes         yes           Chorine Water         Sat'd         32 (90)         yes         <	Caustic Soda	10%	66 (150)	ves	ves	ves	Sodium Dichromate	13%	54 (130)	ves	ves	ves	
Caustic Potash         10%         66 (150)         yes	Caustic Potash	35%	49 (120)	ves	Ves	ves	Water	71%	0.(200)	,	900		
Catch of the Water         Sart d         32 (90)         yes         yes <td>Caustic Potash</td> <td>10%</td> <td>66 (150)</td> <td>ves</td> <td>ves</td> <td>ves</td> <td>Oleic Acid</td> <td>Anv</td> <td>32 (90)</td> <td>ves</td> <td>ves</td> <td>ves</td>	Caustic Potash	10%	66 (150)	ves	ves	ves	Oleic Acid	Anv	32 (90)	ves	ves	ves	
Chromium Plating SolutionAnyGe (150)yesyesyesCitric AcidSat'd 71 (160)yesyesyesyesyesCopper Chloride (Cupric)Sat'd 71 (160)yesyesyesyesyesCopper Chloride (Cupric)Sat'd 71 (160)yesyesyesyesyesCopper Cyanide Plating SolAny71 (160)yesyesyesyes(High Speed)Any82 (180)yesyesyesyesyes(High Speed)Any82 (180)yesyesyesyesyes(Nith Alkali Cyanides)Sat'd 71 (160)yesyesyesyesyesCoconut OilSat'd 71 (160)yesyesyesyesyesCoconut OilSat'd 32 (90)yesyesyesyesyesCottonseed OilSat'd 32 (90)yesyesyesyesyesDisodium PhosphateSat'd 71 (160)yesyesyesyesEthylene GlycolAny32 (90)yesyesyesyesPerrous SulfateSat'd 66 (150)yesyesyesyesFerrous SulfateSat'd 66 (150)yesyesyesyesFormic AcidAny66 (150)yesyesyesFormic AcidAny66 (150)yesyesyesFerric Chloride45%49 (120)yesyesyesFerric ChlorideAny <td>Chlorine Water</td> <td>Sat'd</td> <td>32 (90)</td> <td>ves</td> <td>ves</td> <td>ves</td> <td>Oxalic Acid</td> <td>Sat'd</td> <td>49 (120)</td> <td>ves</td> <td>ves</td> <td>ves</td>	Chlorine Water	Sat'd	32 (90)	ves	ves	ves	Oxalic Acid	Sat'd	49 (120)	ves	ves	ves	
Citric AcidSat'd71 (160)yesyesyesyesCopper Cloride (Cupric)Sat'd71 (160)yesyesyesyesCopper Cloride (Cupric)Sat'd71 (160)yesyesyesyes(High Speed)Any82 (180)yesyesyesyesyes(High Speed)Any82 (180)yesyesyesyesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyesyesyesCopper SulfateSat'd71 (160)yesyesyesyesyesCottonseed OilSat'd32 (90)yesyesyesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesEthylen GlycolAny32 (90)yesyesyesyesFerrioz SulfateSat'd66 (150)yesyesyesFerrous SulfateSat'd66 (150)yesyesyesFerrous SulfateSat'd66 (150)yesyesyesFormic AcidAny66 (150)yesyesyesFormic AcidSat'd66 (150)yesyesyesGallic AcidSat'd66 (150)yesyesyesGlucoseAny66 (150)yesyesyesGlucoseAny66 (150)yesyesyesGlucorinaAny66 (150)yesyes	Chromium Plating Solution	Anv	66 (150)	ves	ves	ves	e name nera	Anv	32 (90)	ves	ves	ves	
Copper Chloride (Cupric)Sat'd71 (160)yesyesyes(High Speed)Any71 (160)yesyesyes(High Speed)Any82 (180)yesyesyes(With Alkali Cyanides)Sat'd71 (160)yesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyes(botomseed OilSat'd32 (90)yesyesyesyesCotonseed OilSat'd32 (90)yesyesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesEthyla IcholAny32 (90)yesyesyesyesPotassium ChorideAf5%49 (120)yesyesyesFerric Chloride45%49 (120)yesyesyesFormaldehyde37%49 (120)yesyesyesFormaldehyde37%49 (120)yesyesyesFormaldehyde37%49 (120)yesyesyesFormic AcidAst'd66 (150)yesyesyesFormaldehyde37%49 (120)yesyesyesFormaldehyde37%49 (120)yesyesyesFormaldehyde37%49 (120)yesyesyes <t< td=""><td>Citric Acid</td><td>Sat'd</td><td>71 (160)</td><td>ves</td><td>ves</td><td>ves</td><td>Phenol</td><td>Sat'd</td><td>49 (120)</td><td>no</td><td>no</td><td>,cs</td></t<>	Citric Acid	Sat'd	71 (160)	ves	ves	ves	Phenol	Sat'd	49 (120)	no	no	,cs	
Copper Cyanide Plating SolAny71 (160)yesyesyes(High Speed)Any82 (180)yesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyesSat'd71 (160)yesyesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyesSat'd71 (160)yesyesyesyesCopper SulfateSat'd71 (160)yesyesyesCoconut OilSat'd32 (90)yesyesyesCottonseed OilSat'd32 (90)yesyesyesDisodium PhosphateSat'd71 (160)yesyesyesSthylacholdAny32 (90)yesyesyesPerric ChlorideAny32 (90)yesyesyesFerrous SulfateSat'd66 (150)yesyesyesFerrous SulfateSat'd66 (150)yesyesyesFormaldehyde37%49 (120)yesyesyesFormic Acid85%38 (100)nonononoGalic AcidSat'd66 (150)yesyesyesGlucoseAny66 (150)yesyesyesAny66 (150)yesyesyesyesFerrois SulfateSat'd66 (150)nonoReduoric AcidAny66 (150)nonoReduoric Acid </td <td>Copper Chloride (Cupric)</td> <td>Sat'd</td> <td>71 (160)</td> <td>ves</td> <td>ves</td> <td>ves</td> <td>Phosphoric Acid</td> <td>75%</td> <td>66 (150)</td> <td>ves</td> <td>ves</td> <td>ves</td>	Copper Chloride (Cupric)	Sat'd	71 (160)	ves	ves	ves	Phosphoric Acid	75%	66 (150)	ves	ves	ves	
Internet StatusAny82 (180)yesyesyesyes(High Speed)Any82 (180)yesyesyesyes(with Alkali Cyanides)Sat'd71 (160)yesyesyesCopper SulfateSat'd71 (160)yesyesyesCoconut OilSat'd32 (90)yesyesyesCottonseed OilSat'd32 (90)yesyesyesDisodium PhosphateSat'd71 (160)yesyesyesStaty AllocholAny32 (90)yesyesyesPotassium ClorocyanideSat'd71 (160)yesyesPotassium ClorocyanideSat'd71 (160)yesyesStaty AllocholAny32 (90)yesyesyesPotassium ClorocyanideSat'd71 (160)yesyesPotassium ClorocyanideSat'd71 (160)yesyesPerrous SulfateSat'd66 (150)yesyesFerrous SulfateSat'd66 (150)yesyesFormaldehyde37%49 (120)yesyesPotassium ThiosulfateSat'd 66 (150)yesyesPotassium ThiosulfateSat'd 66 (150)yesyesFormaldehyde37%49 (120)yesyesPotassium ThiosulfateSat'd 66 (150)yesyesFormaldehyde37%49 (120)yesyesGallic AcidSat'd 66 (150)nono	Copper Cvanide Plating Sol	Anv	71 (160)	ves	ves	ves	Phosphoric Acid	85%	49 (120)	ves	ves	ves	
Copper SulfateSat'd71 (160)yesyesyesyesperCopper SulfateSat'd71 (160)yesyesyesPotassium Acid SulfateSat'd66 (150)yesyesyesCoconut OilSat'd32 (90)yesyesyesyesPotassium AntimonateSat'd66 (150)yesyesyesCotonseed OilSat'd32 (90)yesyesyesyesPotassium ChlorideSat'd71 (160)yesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesyesyesyesyesyesEthyl AlcoholAny32 (90)yesyesyesyesyesper66 (150)yesyesyesEthyl AlcoholAny32 (90)yesyesyesyesyespotassium CuprocyanideSat'd71 (160)yesyesyesEthylane GlycolAny32 (90)yesnoyesyespotassium CuprocyanideSat'd71 (160)yesyesyesFerric Chloride45%49 (120)yesyesyesyespotassium SulfideSat'd32 (90)yesyesyesFuoboric AcidAny66 (150)yesyesyesyespotassium ThiosulfateSat'd66 (150)yesyesyesFormal Acid85%38 (100)nononononono	(High Speed)	Anv	82 (180)	ves	ves	ves	Phosphoric Acid	85%	71 (160)	ves	ves	ves	
Copper SulfateSat'd71 (160)yesyesyesyesyesyesyesCopper SulfateSat'd71 (160)yesyesyesyesyesyesyesCoconut OilSat'd32 (90)yesyesyesyesPotassium AntimonateSat'd66 (150)yesyesyesCottonseed OilSat'd32 (90)yesyesyesyesPotassium ChlorideSat'd71 (160)yesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesPotassium CuprocyanideSat'd71 (160)yesyesyesEthyl AlcoholAny32 (90)yesyesyesyesPotassium CuprocyanideSat'd71 (160)yesyesyesEthyl AlcoholAny32 (90)yesyesyespotassium CyanideSat'd71 (160)yesyesyesEthyl AlcoholAny32 (90)yesyesyespotassium CyanideSat'd71 (160)yesyesyesEthyl AlcoholAny32 (90)yesyesyesyesPotassium HypochloriteSat'd71 (160)yesyesyesFerric Chloride45%49 (120)yesyesyesPotassium HypochloriteSat'd66 (150)yesyesyesFluoboric AcidAny66 (150)yesyesyesyesPotassium ThiosulfateSat'	(with Alkali Cvanides)	Sat'd	71 (160)	ves	ves	ves	Potassium Acid Sulfate	Sat'd	66 (150)	ves	ves	ves	
Coconut OilSat'd32 (90)yesyesyesyesperCottonseed OilSat'd32 (90)yesyesyesyesperDisodium PhosphateSat'd32 (90)yesyesyesyesperDisodium PhosphateSat'd71 (160)yesyesyesyesyesEthyl AlcoholAny32 (90)yesyesyesyesyesyesEthylene GlycolAny32 (90)yesyesyesyesyesyesFerric Chloride45%49 (120)yesyesyesyesyesyesFerrous SulfateSat'd66 (150)yesyesyesyesyesFluoboric AcidAny66 (150)yesyesyesyesyesFormic Acid85%38 (100)nonononoyesyesGallic AcidSat'd 66 (150)yesyesyesyesyesGlucoseAny66 (150)yesyesyesyesyesGlueAny66 (150)yesyesyesyesyesGlueAny66 (150)yesyesyesyesyesSodium Acid SulfateSat'd 66 (150)yesyesyesyesGura ColoSat'd 66 (150)yesyesyesyesGallic AcidSat'd 66 (150)yesyesyesyesGura Colo <td>Copper Sulfate</td> <td>Sat'd</td> <td>71 (160)</td> <td>ves</td> <td>ves</td> <td>ves</td> <td>Potassium Antimonate</td> <td>Sat'd</td> <td>66 (150)</td> <td>ves</td> <td>ves</td> <td>ves</td>	Copper Sulfate	Sat'd	71 (160)	ves	ves	ves	Potassium Antimonate	Sat'd	66 (150)	ves	ves	ves	
Cottonseed OilSat'd32 (90)yesyesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesEthyl AlcoholAny32 (90)yesyesyesyesPotassium CuprocyanideSat'd66 (150)yesyesyesEthyl AlcoholAny32 (90)yesyesyesyesPotassium CuprocyanideSat'd66 (150)yesyesyesEthylene GlycolAny32 (90)yesyesyesyesPotassium DiachromateSat'd71 (160)yesyesyesFerric Chloride45%49 (120)yesyesyesyesPotassium SulfideSat'd66 (150)yesyesyesFormaldehyde37%49 (120)yesyesyesyesyesyesyesyesFormic Acid85%38 (100)nonononononosat'd 66 (150)yesyesyesGallic AcidSat'd66 (150)yesyesyesyesyesyesyesyesGlucoseAny66 (150)yesyesyesyesyesyesyesyesGlucAny66 (150)yesyesyesyesyesyesyesyesGlucoseAny66 (150)yesyesyes <td< td=""><td>Coconut Oil</td><td>Sat'd</td><td>32 (90)</td><td>ves</td><td>ves</td><td>ves</td><td>Potassium Bisulfite</td><td>Sat'd</td><td>32 (90)</td><td>ves</td><td>ves</td><td>ves</td></td<>	Coconut Oil	Sat'd	32 (90)	ves	ves	ves	Potassium Bisulfite	Sat'd	32 (90)	ves	ves	ves	
Disodium PhosphateSat'd71 (160)yesyesyesyesDisodium PhosphateSat'd71 (160)yesyesyesyesEthyl AlcoholAny32 (90)yesyesyesyesEthylene GlycolAny32 (90)yesyesyesyesFerric Chloride45%49 (120)yesyesyesyesFerrous SulfateSat'd66 (150)yesyesyesFluoboric AcidAny66 (150)yesyesyesFormaldehyde37%49 (120)yesyesyesFormaldehyde37%49 (120)yesyesyesFormic Acid85%38 (100)nonononoGallic AcidSat'd66 (150)yesyesyesGlucoseAny66 (150)yesyesyesGlueAny66 (150)yesyesyesGlueAny66 (150)yesyesyesGlueAny66 (150)yesyesyesGlueAny66 (150)yesyesyesGluceAny66 (150)yesyesyesGluceAny66 (150)yesyesyesGluceAny66 (150)yesyesyesGluceAny66 (150)yesyesyesGluceAny66 (150)yesyesyesGlucose <td>Cottonseed Oil</td> <td>Sat'd</td> <td>32 (90)</td> <td>ves</td> <td>ves</td> <td>ves</td> <td>Potassium Chloride</td> <td>Sat'd</td> <td>71 (160)</td> <td>ves</td> <td>ves</td> <td>ves</td>	Cottonseed Oil	Sat'd	32 (90)	ves	ves	ves	Potassium Chloride	Sat'd	71 (160)	ves	ves	ves	
Ethyl AlcoholAny 32 (90)yesyesyesyesEthyl AlcoholAny 32 (90)yesyesyesPotassium CyanideSat'd 71 (160)yesyesEthylene GlycolAny 32 (90)yesnoyesPotassium CyanideSat'd 71 (160)yesyesyesFerric Chloride45%49 (120)yesyesyesyesPotassium DiachromateSat'd 32 (90)yesnoyesFerrous SulfateSat'd 66 (150)yesyesyesyesyespotassium SulfideSat'd 66 (150)yesyesyesFluoboric AcidAny 66 (150)yesyesyesyesyespotassium ThiosulfateSat'd 66 (150)yesyesyesFormic Acid85%38 (100)nonononoyesyesyesyesGallic AcidSat'd 66 (150)yesyesyesyesyesyesyesGlucoseAny 66 (150)yesyesyesyesyesyesyesGlueAny 66 (150)yesyesyesyesyesyesyesGluceAny 66 (150)yesyesyesyesyesyesGluceAny 66 (150)yesyesyesyesyesyesGluceAny 66 (150)yesyesyesyesyesyesGluceAny 66 (150)yesyesyesyesyesyes <td>Disodium Phosphate</td> <td>Sat'd</td> <td>71 (160)</td> <td>ves</td> <td>ves</td> <td>ves</td> <td>Potassium Cuprocyanide</td> <td>Sat'd</td> <td>66 (150)</td> <td>ves</td> <td>ves</td> <td>ves</td>	Disodium Phosphate	Sat'd	71 (160)	ves	ves	ves	Potassium Cuprocyanide	Sat'd	66 (150)	ves	ves	ves	
Ethylene GlycolAny32 (90)yesnoyesperyesFerric Chloride45%49 (120)yesyesyesPotassium DiachromateSat'd71 (160)yesyesyesFerrous SulfateSat'd66 (150)yesyesyesyesPotassium MypochloriteSat'd32 (90)yesnoyesFerrous SulfateSat'd66 (150)yesyesyesyesPotassium SulfideSat'd66 (150)yesyesFluoboric AcidAny66 (150)yesyesyesyesyesPotassium ThiosulfateSat'd66 (150)yesyesFormaldehyde37%49 (120)yesyesyesyesPropyl AlcoholSat'd66 (150)yesyesyesFormic Acid85%38 (100)nononononoyesyesyesyesGallic AcidSat'd66 (150)yesyesyesyesyesyesyesGlucoseAny66 (150)yesyesyesyesyesyesyesyesGlueAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGlueAny66 (150)yesyesyesyesyesyesyesGlueAny66 (150)yes	Ethyl Alcohol	Anv	32 (90)	ves	ves	ves	Potassium Cvanide	Sat'd	71 (160)	ves	ves	ves	
Ferric Chloride45%49 (120)yesyesyesyesFerrous SulfateSat'd66 (150)yesyesyesPotassium HypochloriteSat'd32 (90)yesnoyesFluoboric AcidAny66 (150)yesyesyesyesPotassium SulfideSat'd66 (150)yesyesyesFormaldehyde37%49 (120)yesyesyesyesPotassium ThiosulfateSat'd66 (150)yesyesyesFormaldehyde37%49 (120)yesyesyesyesPotassium ThiosulfateSat'd66 (150)yesyesyesFormic Acid85%38 (100)nonononoRhodium Plating SolutionSat'd66 (150)yesyesyesGallic AcidSat'd66 (150)yesyesyesyesyessesyesyesGlucoseAny66 (150)yesyesyesyesyesSodpsAny32 (90)yesyesyesGluceAny66 (150)yesyesyesyesyesSodjum Acid SulfateSat'd 71 (160)yesyesyesGluceAny32 (90)yesyesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyes	Ethylene Glycol	Anv	32 (90)	ves	no	ves	Potassium Diachromate	Sat'd	71 (160)	ves	ves	ves	
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Fluoboric AcidAny66 (150)yesyesyesyesyesFormaldehyde37%49 (120)yesyesyesyesPotassium ThiosulfateSat'd66 (150)yesyesyesFormic Acid85%38 (100)nononononoRhodium Plating SolutionSat'd66 (150)yesyesyesGallic AcidSat'd66 (150)nonononoyesyesyesyesGlucoseAny66 (150)yesyesyesyesyesyesyesGlueAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyesyesGluceAny66 (150)yesyesyesyesyesyes	Ferrous Sulfate	Sat'd	66 (150)	ves	ves	ves	Potassium Sulfide	Sat'd	66 (150)	ves	Ves	ves	
Formaldehyde37%49 (120)yesyesyesyesPropyl AlcoholSat'd66 (150)yesyesyesFormic Acid85%38 (100)nononononoRhodium Plating SolutionSat'd66 (150)yesyesyesGallic AcidSat'd66 (150)nononoyesyesyesyesGlucoseAny66 (150)yesyesyesyesyesyesGlueAny66 (150)yesyesyesyesyesGluceAny32 (90)yesyesyesyesyesGluceAny32 (90)yesyesyesyesyesGluceAny32 (90)yesyesyesyesyesGluceAny32 (90)yesyesyesyesyesGluceAny32 (90)yesyesyesyesyesSodium Acid SulfateSat'd66 (150)yesyesyesSodium Acid SulfateSat'd66 (150)yesyesyesGluceAny32 (90)yesyesyesyesSodium Acid SulfateSat'd66 (150)yesyesSodium Acid SulfateSat'd66 (150)yesyesSodium Acid SulfateSat'd66 (150)yesyesSodium Acid SulfateSat'd66 (150)yesyesSodium Acid	Fluoboric Acid	Δηγ	66 (150)	ves	Ves	Ves	Potassium Thiosulfate	Sat'd	66 (150)	ves	ves	Ves	
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Gallic AcidSat'd66 (150)no <th< td=""><td>Formic Acid</td><td>85%</td><td>38 (100)</td><td>,03</td><td>, c 3</td><td>,03</td><td>Rhodium Plating Solution</td><td>Sat d</td><td>66 (150)</td><td>y C3</td><td>VAC</td><td>, yes</td></th<>	Formic Acid	85%	38 (100)	,03	, c 3	,03	Rhodium Plating Solution	Sat d	66 (150)	y C3	VAC	, yes	
Glucose     Any     66 (150)     yes     <	Gallic Acid	Sat'd	66 (150)	no	no		Silver Plating Solution	Sat d	66 (150)	y C3	VAC	, yes	
Glue     Any     66 (150)     yes     yes     yes     yes     yes     yes       Glue     Any     66 (150)     yes     yes     yes     Sodium Acid Sulfate     Sat'd     71 (160)     yes     yes     yes	Glucose	Δην	66 (150)	Vec	VAC	Ves	Soaps	Δην	32 (90)	VAC	VAC	VAC	
$\Delta ny = 32 (90)$ yes yes yes yes codium Actio Surface Sature (100) yes yes yes yes	Glue	Δny	66 (150)	yes	yes	yes	Sodium Acid Sulfate	Cat'd	71 (160)	yes	Voc	yes	
	Glycerine	Δηγ	32 (90)	yes	yes	yes	Sodium Antimonate	Sat u Sat 'd	66 (150)	yes	yes	yes vec	

# Ocal PVC exterior coating chemical resistance (continued)

		Temp.	Recommended Exposure			
Solutions	Conc.	°C (F)	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	

		Temp.	Recommended Exposure				
Solutions	Conc.	°C (F)	Splashing	Liquid	Fumes		
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

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

Ocal urethane interior coating chemical resistance (continued)

	Temp. Recommended Exposure			posure			Temp. Recommended Exposure			
Solutions	Conc.	°C (F)	Splashing	Liquid	Fumes	Solutions	Conc.	°C (F)	Splashing Liquid	Fumes
Hydrofluoric Acid	4.00%	24 (75)	yes	no	yes	Potassium Sulfide	Sat'd	24 (75)	yes no	yes
Hydrofluoric Acid	10%	24 (75)	yes	no	yes	Potassium Thiosulfate	Sat'd	24 (75)	yes no	yes
Hydrofluoric Acid	48%	24 (75)	yes	no	yes	Propyl Alcohol	Sat'd	24 (75)	yes no	yes
Hydrogen Peroxide	30%	24 (75)	yes	no	yes	Rhodium Plating				
Hydrogen Sulfide	Sat'd	24 (75)	yes	no	yes	Solution	Sat'd	24 (75)	yes no	yes
Hydroquinone	Any	24 (75)	yes	no	yes	Silver Plating Solution	Sat'd	24 (75)	yes no	yes
Indium Plating Solution	Any	24 (75)	yes	no	yes	Soaps	Any	24 (75)	yes no	yes
Lactic Acid	50%	24 (75)	yes	no	yes	Sodium Acid Sulfate	Sat'd	24 (75)	yes no	yes
Lactic Acid	Any	24 (75)	yes	no	yes	Sodium Antimonate	Sat'd	24 (75)	yes no	yes
Lead Plating Solution	Any	24 (75)	yes	no	yes	Sodium Bicarbonate	Sat'd	24 (75)	yes no	yes
Malic Acid	Any	24 (75)	yes	no	yes	Sodium Bisulfite	Sat'd	24 (75)	yes no	yes
Methyl Alcohol	Any	24 (75)	yes	no	yes	Sodium Chloride	Sat'd	24 (75)	yes no	yes
Mineral Oils	Any	24 (75)	yes	yes	yes	Sodium Cyanide	Sat'd	24 (75)	yes no	yes
Nickel Acetate	Sat'd	24 (75)	yes	no	yes	Sodium Dichromate	Sat'd	24 (75)	yes no	yes
Nickel Plating Solution		24 (75)	yes	no	yes	Sodium Hydroxide	10%	24 (75)	yes no	yes
Nickel Salts	Sat'd	24 (75)	yes	no	yes	Sodium Hydroxide	35%	24 (75)	yes no	yes
Nitric Acid	35%	24 (75)	yes	no	yes	Sodium Hydroxide	73%	24 (75)	yes no	yes
Nitric Acid	40%	24 (75)	yes	no	yes	Sodium Hypochlorite	Sat'd	24 (75)	yes no	yes
Nitric Acid	60%	24 (75)	yes	no	yes	Sodium Hypochlorite	15%	24 (75)	yes no	yes
Nitric Acid/	15%					Sodium Sulfide	Sat'd	24 (75)	yes no	yes
Hydrofluoric Acid	4%	24 (75)	yes	no	yes	Sodium Thiosulfate	Sat'd	24 (75)	yes no	yes
Nitric Acid/	16%					Sulfuric Acid	15%	24 (75)	yes no	yes
Sodium Dichromate	13%	24 (75)	yes	no	yes	Sulfuric Acid	50%	24 (75)	yes no	yes
Water	71%					Sulfuric Acid	70%	24 (75)	yes no	yes
Oleic Acid	Any	24 (75)	yes	no	yes	Sulfuric Acid	98%	24 (75)	yes no	yes
Oxalic Acid	Sat'd	24 (75)	yes	no	yes	Sulfurous Acid	2%	24 (75)	yes no	yes
	Any	24 (75)	yes	no	yes	Sulfurous Acid	6%	24 (75)	yes no	yes
Phenol	Sat'd	24 (75)	yes	no	yes	Tannic Acid	Sat'd	24 (75)	yes no	yes
Phosphoric Acid	75%	24 (75)	yes	no	yes	Tartaric Acid	Sat'd	24 (75)	yes no	yes
Phosphoric Acid	85%	24 (75)	yes	no	yes	Tin Chloride Aqueous	Sat'd	24 (75)	yes no	yes
Potassium Antimonate	Sat'd	24 (75)	yes	no	yes	Tin Plating Solution	Sat'd	24 (75)	yes no	yes
Potassium Bisulfite	Sat'd	24 (75)	yes	no	yes	Triethaneolamine	Sat'd	24 (75)	yes no	yes
Potassium Chloride	Sat'd	24 (75)	yes	no	yes	Trisodium Phosphate	Sat'd	24 (75)	yes no	yes
Potassium Cuprocyanide	sat'd	24 (75)	yes	no	yes	Water	Sat'd	24 (75)	yes no	yes
Potassium Cyanide	Sat'd	24 (75)	yes	no	yes	White Liquor		24 (75)	yes no	yes
Potassium Diachromate	Sat'd	24 (75)	yes	no	yes	Zinc Plating Solution		24 (75)	yes no	yes
Potassium Hypochlorite	Sat'd	24 (75)	yes	no	yes	Zinc Sulfate	Sat'd	24 (75)	yes no	yes

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<sup>®</sup> (NEC<sup>®</sup>)
- 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 America1. 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 PVCcoated 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.

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.

Ocal guide specification (continued):

- 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

 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

- 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.
- If subjected to sustained flame or sustained heat above 400 °F (204°C), PVC will burn. PVC is self-extinguishing at room temperature.