

C&B PIPING, INC.

P.O. Box 942 Leeds, AL 35094 (205) 699-0455

www.cbpiping.com

C&B Piping Coating Submittal

Exterior Coating:Perma-Glaze Series G435 EpoxyManufacturer:TnemecSurface Prep:Remove oil, grease, and other surface contaminants per NAPF 500-03-01
Abrasive blast clean per NAPF 500-03-04 for pipe, NAPF 500-03-05 for cast fittingsThickness:20 mils Nominal DFT

Notes:

- C&B Piping applies this coating per the Tnemec recommendations specific to ductile iron.
- In order to achieve the 20 mils Nominal DFT for this system, C&B Piping may apply additional thickness within the guidelines published in the Tnemec PDS attached.
- Final thickness will be checked and certified in the shop by C&B Piping per SSPC PA2 TABLE A7 pipe example attached.
- C&B Piping will perform shop holiday detection testing and provide certification. After products leave our shop facility and while not in our direct control, piping will be exposed to physical and environmental changes that can result in failed holiday testing in the field. C&B Piping does not participate in such testing and/or remediation of issues if required.

Handling & Storage:

- Careful handling and effective storage are critical in limiting physical and environmental damage to the coating. Coatings exposed to weather and/or chemical exposure will limit the maximum recoat window and potentially cause adhesion issues.
- C&B Piping will use padded forks and/or nylon slings for loading/packaging to limit scuffing. C&B Piping will use padded dunnage and chocks or rubber separators for pipes. C&B will use padding under the truck straps to limit strap markings on the coating. Palletized products will use separators and padding as necessary to limit scuffing. Pallets will be shrink wrapped with plastic. These methods will reduce the amount of paint scuffing, but cannot fully eliminate all exposure to minor scuffs during transit.
- Contractor must use Nylon Slings or Padded Forks for unloading and movement. Nylon slings are best.
- All products should be stored off the ground on wood dunnage with padding, chocks, and separators in place. Carpet, Foam, or Cardboard are commonly used forms of padding.





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- All products should be stored out of the weather or protected from the weather.
- If field top coating is required, C&B Piping recommends final top coat be applied within 28 days of delivery to jobsite, or shorter if the project specifications require.
- Contractor must repair minor and normal scuff damage. C&B Piping will provide price and availability of repair kits for field repair if requested.





PERMA-GLAZE SERIES G435

GENERIC DESCRIPTION COMMON USAGE	Modified Polyamine Epoxy A versatile, thick film, 100% solids, abrasion-resistant lining specifically designed for domestic wastewater immersion and fume environments. Series 435 provides low permeation to H ₂ S gas, protects against MIC and provides chemical resistance to severe wastewater environments. Contains micro-fiber reinforcement for improved film integrity.					
COLORS FINISH	5020 Gray, 5023-Beige. Note: Epoxies chalk with extended exposure to sunlight. Gloss					
COATING SYSTEM						
SURFACER/FILLER/PATCHER	Series 215, 217, 218.					
PRIMERS	Steel: Self-priming or Series 61, L69, L69F, N69, N69F, V69, V69F. Note: Series 61 is recommended for use in mesophilic anaerobic digesters and other severe exposures. Contact your Tnemec representative for more information. Note: Series 61, L69, L69F, N69, N69F, V69, or V69P must be scarified after 7 days before topcoating with G435. Concrete: Self-priming or Series 61, N69, N69F, 201. Note: Series 201 must be scarified after 24 hours before topcoating with G435. Note: Series 61, N69, or N69F must be scarified after 7 days before topcoating with G435. Note: Series 61, N69, or N69F must be scarified after 7 days before topcoating with G435. Note: Series 61, N69, or N69F must be scarified after 7 days before topcoating with G435. Note: Series 61 is recommended for use in mesophilic anaerobic digesters and other severe exposures. Contact your Tnemec representative for more information.					
INTERMEDIATE	Series 434 or 436 (optiona	al)				
	Note: To minimize pinho and/or primed prior to to	le formation in the top pcoat application.	coat, it is recommended	that concrete substrates be	fully resurfaced	
SURFACE PREPARATION						
	Prepare surfaces by meth- recommendations.	od suitable for exposu	e and service. Refer to t	he appropriate primer data s	sheet for specific	
STEEL	SSPC SP5/NACE 1 White	Metal Blast Cleaning w	ith a 3.0 mil minimum a	ngular anchor profile.		
	with ASTM F 1869 "Stand Anhydrous Calcium Chlor hour period), F 2170 "Star humidity should not exce Sheet Method" (no moistu Preparation Standards and surfaces to remove laitand ICRI CSP 5 surface profile or surfaces.	ard Test Method for Me ride" (moisture vapor tu ndard Test Method for ved 80%), or D 4263 "St are present). Prepare co d ICRI Technical Guide ce, curing compounds, 2. Large cracks, voids au	asuring Moisture Vapor ansmission should not e Determining Relative Hu andard Test Method for merete surfaces in accor lines. Abrasive blast, she hardeners, sealers and c hardener surface imperfe	Emission Rate of Concrete S xceed three pounds per 1,0 imidity in Concrete using in Indicating Moisture in Conc dance with NACE No. 6/SSF t blast, water jet or mechan ther contaminants and to p tetions should be filled with	Subfloor Using 00 square feet in a 24 situ Probes" (relative rete-by the Plastic PC SP13 Joint Surface ically abrade concrete rovide a minimum a recommended filler	
	Contact your Tnemec representative or Tnemec Technical Services. Must be clean, dry and free of oil, grease and other contaminants.					
OTHER SUBSTRATES ALL SURFACES	Contact your Tnemec rep Must be clean, dry and fre	resentative or Tnemec ee of oil, grease and ot	Technical Services. her contaminants.			
OTHER SUBSTRATES ALL SURFACES TECHNICAL DATA	Contact your Tnemec rep Must be clean, dry and fr	resentative or Tnemec ee of oil, grease and ot	Technical Services. her contaminants.			
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Published technical data and instructions are subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions or you may contact your Themec representative for current technical data and instructions.

PRODUCT DATA SHEET

PERMA-GLAZE | SERIES G435

									WIIACu
	Large Ki	t †	5 gallon p	ail	<u>5 g</u>	allon pail	8	8 gallons	s (30.28 L)
	Medium	Kit	3 gallon j	pail	6 g	allon pail	5	5 gallons	s (15.14 L)
	Small K	Small Kit 1 gallon can		an	1 g	gallon can 1 gallon (3.		(3.79 L)	
	† Plural Component application only.								
NET WEIGHT PER GALLON	10.85 ± 0.25 lbs (4	.92 ± 0.11 kg) (mixed)						
STORAGE TEMPERATURE	Minimum 40°F (4°C) Maximum 110°F (43°C) For optimum handling and application characteristics, both material components should be stored or conditioned								
	between 70°F and	80°F (21°C a	nd 27°C) 48 hours	prior to use.					
EMPERATURE RESISTANCE	(Dry) Continuous 275°F (135°C) Intermittent 300°F (149°C)								
SHELF LIFE	12 months at recor	mmended sto	rage temperature.						
FLASH POINT - SETA	Part A: >230°F (110°C) Part B: 184°F (84°C)								
NEALIN & SAFELY	Data Sheet for imp Keep out of the	oortant health	and safety inform	ation prior to t	he use of	this product.	iner ladel w	varning a	and Safety
PLICATION									
COVERAGE RATES	Before commencir	ng, obtain an	thoroughly read	the Series 435	Surface Pr	eparation and	Application	n Guide.	
	Conventional Bu	na (Spray, 1	brusn, or Roller)	6 . TH/0		High-Buil	ia (Spray C	Uniy)	6 - TH/C
		(Microns)	(Microns)	Sq Ft/G (m²/Ga	ral I) ((Microns)	wet Mi (Micron	ns)	Sq Ft/Ga (m²/Gal
		()	(in the second s		0) 4	(0.0.(1015)	40.0 (10	15)	40 (3.7)
	Minimum	15.0 (380)	15.0 (380)	107 (10.		+0.0 (1013) 1	40.0 (10)	1 2 2 1	
	Minimum Maximum	15.0 (380) 40.0 (1015)	40.0 (1015)	<u> </u>) 1	25.0 (3175)	125.0 (31	175)	13 (1.2)
MIXING	Minimum Maximum Note: Recommence page 1. Allow for e Application of coa coating performan Mix the entire con Use a variable spe the mixing process Apply the mixed n	15.0 (380) 40.0 (1015) ded DFT will overspray an ting below th ce. tents of Part ed drill with s, scrape the naterial with	15.0 (380) 40.0 (1015) depend on substrad d surface irregularities minimum or abord A and Part B separa a PS Jiffy blade and sides and bottom of a port life limits affront	107 (10. 40 (3.7) tte condition at ties. Film thick we maximum the ately. Scrape a d mix the blend of the containe regaritation. N) 1 nd system ness is rou recommer ll of the P ded comp r to ensure	25.0 (1013) 25.0 (3175) unded to the n uded dry film t art A into the l onents for a m e all of Parts A	125.0 (31 to Recomme hearest 0.5 m hicknesses Part B using hinimum of and B are paterial will	nended E mil or 5 n may adv g a flexib two min blended	13 (1.2) DFT section microns. versely affe ole spatula. nutes. Durin l together. nuickly if n
MIXING THINNING	Minimum Maximum Note: Recommence page 1. Allow for of Application of coa coating performan Mix the entire com Use a variable spe the mixing process Apply the mixed m applied or reduced Mixing ratio is one DO NOT THIN	15.0 (380) 40.0 (1015) ded DFT will overspray an ting below th ce. tents of Part ed drill with s, scrape the naterial withid in volume. e to one by v	15.0 (380) 40.0 (1015) depend on substrading surface irregularies discrete surface irregularies	te condition au ties. Film thick we maximum f ately. Scrape a d mix the blen of the containe er agitation. Ne reseal mixed) 1 nd system ness is rour ness is rour ness is rour ll of the P ded comp r to ensure ness rour ote: A larg naterial.	25.0 (3175) design. Refer unded to the n ided dry film t art A into the l onents for a m e all of Parts A ge volume of n An explosion	40.0 (10. 125.0 (31 to Recomm learest 0.5 r hicknesses Part B using inimum of and B are naterial will n hazard n	g a flexil: two min blended E may adv g a flexil: two min blended I set up c nay be c	13 (1.2) DFT section microns. versely affe- ble spatula. nutes. Durin I together. quickly if n created.
MIXING Thinning Pot Life	Minimum Maximum Note: Recommence page 1. Allow for exactly Application of coal coating performan Mix the entire con Use a variable spethe mixing process Apply the mixed mapplied or reduced Mixing ratio is one DO NOT THIN 25 to 30 minutes a Material temperature	15.0 (380) 40.0 (1015) ded DFT will overspray an ting below th ce. tents of Part ed drill with s, scrape the naterial withid in volume. e to one by v at 70°F (21°C) tres above 80	15.0 (380) 40.0 (1015) depend on substradistration of the surface irregularities in minimum or abord and the surface irregularities and bottom of a PS Jiffy blade and sides and bottom of a pot life limits after Caution: Do not folume. 15 to 20 minuttor of (27°C) will sign	te condition ar ties. Film thick we maximum f ately. Scrape a d mix the blen of the containe er agitation. No reseal mixed) 1 nd system 1 ness is roor 1 recommer 1 ll of the P 1 ded comp 1 r to ensure 1 ote: A larg 1 material. 1 C) e e the spray	25.0 (3175) design. Refer unded to the n uded dry film t art A into the 1 onents for a m e all of Parts A e volume of n An explosion	125.0 (31 to Recomm learest 0.5 r hicknesses Part B using inimum of a and B are naterial will n hazard n	175) mended E mil or 5 r may adv g a flexil: two min blended l set up c nay be c	13 (1.2) DFT section microns. versely affe- ble spatula. Dutes. Durin I together. quickly if n created.
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MIL THICKNESS VERIFICATION METHOD OF TEST FOR PIPE & PIPE SPOOLS

TABLE A7

NUMBER AND LOCATION OF SPOT MEASUREMENTS - PIPE SPOOLS

PIPE DIAMETER	CIRCUMFERENTIAL SPOT MEASUREMENTS	PA2 INTERVAL SPACING	C&B STANDARD INTERVAL SPACING
UP to 12 INCHES (30 cm)	4 EVENLY SPACED	10 FEET (3 METERS) APART*	4 FEET APART
14 to 24 INCHES (36-60 cm)	6 EVENLY SPACED	10 FEET (3 METERS) APART*	4 FEET APART
GREATER THAN 24 INCHES (60 cm)	8 EVENLY SPACED	10 FEET (3 METERS) APART*	4 FEET APART

*Table From SSPC-PA2



