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## **NEPCOAT Qualified Products List A**

for Protective Coatings for **NEW** and **100% BARE EXISTING** Steel for Bridges

NEPCOAT			Slip	Manuf	r Coating	VOC	QPL
or NTPEP		3-COAT SYSTEM	Coef	DFT (min/max)		Tested	Accepted
System No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates

NEPCOAT LIST F	- INORGANIC Zinc Rich Primer / Epoxy or Urethane I	ntermed	diate / Ali	phatic Ureth	ane Finis	<u>sh</u>
SSC(03)-01 (A7-97)	CARBOLINE COMPANY					from
P	Carbozine 11 HS	$B^{1}$	2-6	50-150	278	2/15/05
I	Carboguard 893 Epoxy Intermediate		3-6	75-150	189	until
T	Carbothane 133 HB Aliphatic Polyurethane		3-7	75-175	370	spring 2010
<sup>1</sup> Footnote	6 mils max DFT, 18 hrs min cure, 15 oz/gal max thin					
SSC(03)-08*	INTERNATIONAL PAINT INC					from
P	Interzinc 22 HS Inorganic Zinc Primer	$B^{1}$	2.5-5	63-125	365	2/15/05
I	Intergard 475 HS Epoxy		4-8	100-200	191	until
Т	Interthane 870 Polyurethane		3-5	75-125	405	spring 2008
<sup>1</sup> Footnote	4 mils max DFT, 16 hrs min cure, 8 oz/gal max thin'r					

P= Primer I= Intermediate T= Topcoat HB= High Build HS= High solids DT= Direct to

<sup>&</sup>lt;sup>1</sup> Footnote Information from the Slip-Coefficient and Creep Resistance Test Certificate is given for use w/ primed bolted connections. NOTES 1 NEPCOAT is the NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, ME, MA, NH, NJ, NY, PA, RI, VT Accelerated lab and field testing of coating systems is performed according to AASHTO NTPEP R-31 criteria. 2 3 Systems are accepted for use on NEW and 100% BARE EXISTING steel for bridges cleaned by abrasive blasting. 4 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00). 5 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria. 6 VOC values are lab test results using unthinned samples. NEPCOAT max VOC limit is 420 g/L (3.5 lb/gal). Individual state requirements for VOC limits may differ. 7 DFT values are recommended by the manufacturer. Any change in coating formulation from that tested will result in removal of the system from the QPL. 8 9 The QPL term is 5 years starting from the date of acceptance until the next bi-annual NEPCOAT meeting. See R-31. Acceptance is CONDITIONAL pending submission within three years of successful 2-year field history. \*\* The term is extended up to one year if the identical system is being retested at the end of the term.



## **NEPCOAT Qualified Products List B**

for Protective Coatings for IEW and 100% BARE EXISTING Steel for

REAL MOTECTIVE	COATRACO	NEW and 100% BARE EXISTING Steel for Bridges								
NEPCOAT			Slip		r Coating	VOC	QPL			
or NTPEP		3-COAT SYSTEM	Coef	DFT (1	min/max)	Tested	Accepted			
System No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates			
NEPCOAT	LIST <b>B</b>	- ORGANIC Zinc Rich Primer / Epoxy or Urethane Int	termediate	e / Alipha	atic Urethar	ne Finish				
GGG(02) 02	(DZ 0Z)	CARROLINE COMPANY					6			
SSC(03)-02		CARBOLINE COMPANY Corboring 850 Zing Righ Engage Brimen	$\mathbf{B}^{1}$	3-10	75-225	326	from 2/15/05			
	P	Carbozine 859 Zine Rich Epoxy Primer	Ь							
	I	Carboguard 888 Epoxy Intermediate		3-10	75-225	331	until			
	T	Carbothane 133 HB Aliphatic Polyurethane		3-7	75-175	370	spring 2010			
	Footnote	6 mils max DFT, 4 days min cure, 10% vol max thin								
SSC(03)-05*	k	AMERON INTERNATIONAL					from			
	P	Amercoat 68 HS	$A^{1}$	1-3	25-75	240	11/17/05			
	I	Amercoat 399		4-8	100-200	182	until mtg.			
	T	Amercoat 450 H		2-3	50-75	303	fall 2008			
	<sup>1</sup> Footnote	Slip coefficient does not meet Class B requirements								
SSC(03)-11*	k	PPG INDUSTRIES					from			
33C(03)-11	P	Aquapon® Zinc Rich Primer 97-670	$\mathbf{B}^{1}$	3-4	76-102	383	2/15/05			
		• •	Ь							
	I	Pitt-Guard® DT Rust Epoxy 97-946		4-7	102-178	241	until			
	T	Pitthane® HB Urethane Enamel 95-8800		2-5	51-127	267	spring 2008			
	Footnote	4 mils max DFT, 24 hrs min cure								
SSC(03)-12*	k	INTERNATIONAL PAINT INC					from			
	P	Interzinc 52 Organic Zinc	Ø	2-3	50-75	364	2/15/05			
	I	Intergard 475 HS Epoxy	(not	4-8	100-200	191	until			
	T	Interfine 979 Polysiloxane	tested)	3-6	75-150	206	spring 2008			
Q	Footnote	The test was not performed.								
(continues)		(List B continues)					(List B continues)			
	Informati	on from the Slip-Coefficient and Creep Resistance Test	t Certifica	ite is give	en for use w		`			
NOTES										
1	NEPCOA	AT is the NORTHEAST PROTECTIVE COATINGS C	OMMITT	TEE of C	T, ME, MA	, NH, NJ,	NY, PA, RI, VT			
2	Accelerat	ted lab and field testing of coating systems is performed	l accordin	g to AAS	SHTO NTP	EP R-31 c	riteria.			
3	Systems	are accepted for use on NEW and 100% BARE EXISTI	ING steel	for bridg	es cleaned	by abrasiv	e blasting.			
4	(Ax-97) s	systems comply with NEPCOAT 97 Testing Standard (	(6/1/97) &	. Accepta	ance Criteri	a (3/30/00	).			
5	SSC(yr)-	xx systems comply with AASHTO R-31 Evaluation Pra	actice & N	NEPCOA	T Acceptar	ce Criteri	a.			
6	VOC val	ues are lab test results using unthinned samples. NEPC	OAT max	vOC lii	mit is 420 g	/L (3.5 lb/	gal). Individual			
		equirements for VOC limits may differ.								
7		les are recommended by the manufacturer.								
8		age in coating formulation from that tested will result in	removal	of the sv	stem from t	he OPL.				
9	-	term is 5 years starting from the date of acceptance unt		-			g. See R-31			
*	_	ce is CONDITIONAL pending submission within three					-			
**	-	is extended up to one year if the identical system is bei	-		•	-	-			
Key	P= Prime		_							
KCy	1 - 111111	or i intermediate 1 – ropeoat 110 – riigii bullu	110-П	11511 3011 <b>U</b>	ט דע ט	100110				

Meeting/Effective Date: 6/5/96, 9/4/96, 1/8/97, 7/22/97, 5/20/98, 3/3/99, 9/22/99, 3/30/00, 11/8/00, 3/28/01, 5/14/01, 11/20/01, 11/29/01, 4/24/02, 2/24/03, 4/17/03, 3/16/04, 2/15/05, 4/19/05 R1, 11/17/05 R1



## **NEPCOAT Qualified Products List B**

for Protective Coatings for **NEW** and **100% BARE EXISTING** Steel for Bridges

NEPCOAT			Slip	Manuf	"r Coating	VOC	QPL
or NTPEP		3-COAT SYSTEM	Coef	DFT (min/max)		Tested	Accepted
System No. Coa	ts	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates

NEPCOAT LIST <b>B</b> - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish								
SSC(04)-02*	CARBOLINE COMPANY					from		
P	Carbozine 859 Zinc Rich Epoxy Primer	$B^{1}$	3-10	75-250	327	11/17/05		
I	Carboguard 888 Epoxy Intermediate		3-8	75-200	320	until mtg.		
T	Carbothane 133 LH Aliphatic Polyurethane		3-6	75-150	311	fall 2008		
<sup>1</sup> Footnote	e 6 mils max DFT, 4 days min cure, 10% vol max thin							
SSC(04)-03*	SHERWIN WILLIAMS COMPANY					from		
P	Zinc Clad III HS Primer	$B^{1}$	3-5	75-125	330	11/17/05		
I	Macropoxy 646		5-10	125-250	191	until mtg.		
T	Acrolon 218 HS		3-6	75-150	280	fall 2008		

<sup>&</sup>lt;sup>1</sup> Footnote <sup>5</sup> mils max DFT, 7 days min cure, zero thinner

<sup>1</sup> Footnote	Information from the Slip-Coefficient and Creep Resistance Test Certificate is given for use w/ primed bolted connections.	l
NOTES		l

- NEPCOAT is the NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, ME, MA, NH, NJ, NY, PA, RI, VT
- 2 Accelerated lab and field testing of coating systems is performed according to AASHTO NTPEP R-31 criteria.
- 3 Systems are accepted for use on NEW and 100% BARE EXISTING steel for bridges cleaned by abrasive blasting.
- 4 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00).
- 5 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria.
- VOC values are lab test results using unthinned samples. NEPCOAT max VOC limit is 420 g/L (3.5 lb/gal). Individual state requirements for VOC limits may differ.
- 7 DFT values are recommended by the manufacturer.
- 8 Any change in coating formulation from that tested will result in removal of the system from the QPL.
- 9 The QPL term is 5 years starting from the date of acceptance until the next bi-annual NEPCOAT meeting. See R-31.
- \* Acceptance is CONDITIONAL pending submission within three years of successful 2-year field history.
- \*\* The term is extended up to one year if the identical system is being retested at the end of the term.
- Key P= Primer I= Intermediate T= Topcoat HB= High Build HS= High solids DT= Direct to

Meeting/Effective Date: 6/5/96, 9/4/96, 1/8/97, 7/22/97, 5/20/98, 3/3/99, 9/22/99, 3/30/00, 11/8/00, 3/28/01, 5/14/01, 11/20/01, 11/29/01, 4/24/02, 2/24/03, 4/17/03, 3/16/04, 2/15/05, 4/19/05 R1, 11/17/05 R1



### **NEPCOAT Qualified Products List C**

for Protective Coatings for **NEW** and **100% BARE EXISTING** Steel for Bridges

NEPCOAT	<u>.</u>		Slip	Manuf	r Coating	VOC	QPL
or NTPEP		2-COAT SYSTEM 10	Coef	DFT (min/max)		Tested	Accepted
System No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates

### NEPCOAT LIST C - ORGANIC Zinc Rich Primer / ----- / Topcoat

SSC(02)-04*	SHERWIN WILLIAMS COMPANY					from
P	Corothane I Galva-Pac One Pack Zinc Primer	$\mathbf{B}^{1}$	3.5-4	90-100	298	4/19/05
I						until
T	Fast Clad Urethane		6-9	150-225	263	spring 2008
1 Footpote	1 mile may DET 21 hre min our					

<sup>&</sup>lt;sup>1</sup> Footnote 4 mils max DFT, 24 hrs min cure

- 1 NEPCOAT is the NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, ME, MA, NH, NJ, NY, PA, RI, VT
- 2 Accelerated lab and field testing of coating systems is performed according to AASHTO NTPEP R-31 criteria.
- 3 Systems are accepted for use on NEW and 100% BARE EXISTING steel for bridges cleaned by abrasive blasting.
- 4 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00).
- 5 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria.
- WOC values are lab test results using unthinned samples. NEPCOAT max VOC limit is 420 g/L (3.5 lb/gal). Individual state requirements for VOC limits may differ.
- 7 DFT values are recommended by the manufacturer.
- 8 Any change in coating formulation from that tested will result in removal of the system from the QPL.
- 9 The QPL term is 5 years starting from the date of acceptance until the next bi-annual NEPCOAT meeting. See R-31.
- A two-coat system shall have a min. total 9 mils DFT and meet all other R-31 requirements.
- \* Acceptance is CONDITIONAL pending submission within three years of successful 2-year field history.
- \*\* The term is extended up to one year if the identical system is being retested at the end of the term.
- Key P= Primer I= Intermediate T= Topcoat HB= High Build HS= High solids DT= Direct to

<sup>&</sup>lt;sup>1</sup> Footnote Information from the Slip-Coefficient and Creep Resistance Test Certificate is given for use w/ primed bolted connections. NOTES



# NEPCOAT Acceptance Criteria List A, B, C

for Protective Coatings for

### NEW and 100% BARE EXISTING Steel for Bridges

'97 NEPCOAT Testing Standard (6/1/97) & NEPCOAT Acceptance Criteria (7/22/97, 3/3/99, 9/22/99, 3/30/00)

'02 AASHTO R31-02 Testing Standard & NEPCOAT Acceptance Criteria (3/16/04, 2/15/05)

#### **TEST NO. 1 - SLIP COEFFICIENT**

<u>Primer</u> Acceptance criteria (min.)

IOZ Slip coefficient 0.5 (Class B) required

OZ Report results only

#### **TEST NO. 2 - SALT FOG RESISTANCE (ASTM B117)**

Delamination Acceptance criteria: no delamination allowed

Rust / Blistering Acceptance criteria (max.):

//----- RUST CRITERIA -----// -- BLISTER CRITERIA--<u>@ Hrs</u> <u>max creep</u> <u>ave creep</u> <u>% length</u> <u>in scribe</u> @ Hrs Convers'n# Primer System not req'd not req'd P-I-T IOZ 5000 4 mm 2 mm 4000 8 not req'd not req'd 7 P-I-T 5000 4000 OZ4 mm 2 mm

#### TEST NO. 3 - CYCLIC WEATHERING RESISTANCE (ASTM D5894)

Delamination Acceptance criteria: no delamination allowed

Rust / Blistering Acceptance criteria (max.):

//----- RUST CRITERIA -----// -- BLISTER CRITERIA--

@ Hrs max creep ave creep % length in scribe **Primer** System @ Hrs Convers'n# not req'd not req'd IOZ P-I-T 5040 4 mm 2 mm 4032 9 not req'd not req'd P-I-T 5040 8 mm 4 mm 4032 8 OZ

GLOSS value Acceptance criteria: Report results only GLOSS % Retent'n Acceptance criteria: Report results only COLOR Change,  $\Delta e$  Acceptance criteria: Report results only

#### TEST NO. 4 - ABRASION RESISTANCE (ASTM D4060)

Weight Loss Acceptance criteria: Report results only
Wear Index Acceptance criteria: Report results only

#### TEST NO. 5 - ADHESION (ASTM D4541)

Pull-Off Strength Acceptance criteria (min.) for both primer and PIT panels:

IOZ 2.4 MPa (350 psi) OZ 4.1 MPa (600 psi)

### TEST NO. 6 - FREEZE THAW STABILITY

Pull-Off Strength Acceptance criteria: achieve min. Test 5 req'd PIT adhesion results and fall within 60% of Test 5 values

#### **TEST NO. 7 - COATING IDENTIFICATION TESTS**

VOC Acceptance criteria: Max. 420 g/L (3.5 lb/gal). Individual state requirements may differ.

Coating properties Acceptance criteria: Report only

Coating thickness Acceptance criteria: A 2-coat system shall be tested and applied at min. total 9 mils DFT.

#### TEST NO. 8 - ATMOSPHERIC EXPOSURE (TWO YEAR) at ocean beach site

Acceptance criteria: To be determined / Report results

#### ITEM NO. 9 - FIELD HISTORY (TWO YEAR) Field history on five projects in one of four regions of the country

Acceptance criteria: Report results