



# NEPCOAT Qualified Products List A

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

NTPEP System No.	Coats	3-COAT SYSTEM TESTED AND ACCEPTED	Slip Coef Class	Manuf'r Coating DFT (min/max) mil micron	VOC Tested g/L	QPL Accepted Dates
<b>NEPCOAT LIST A - INORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish</b>						
SSC(03)-01 (A7-97)		CARBOLINE COMPANY				from
	P	Carbozinc® 11 HS Inorganic Zinc Primer	B <sup>1</sup>	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® 22HS Inorganic Zinc Silicate Primer	B <sup>1</sup>	2.5-5 63-125	365	2/15/05
	I	Intergard 475HS Epoxy		4-8 100-200	191	until
	T	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					
SSC(04)-04*		ICI PAINTS / DEVOE COATINGS				from
	P	Catha-Coat® 304V Silicate Inorganic Zinc Coating	B <sup>1</sup>	2-4 50-100	319	10/5/06
	I	Bar-Rust® 231 Multi-Purpose Epoxy Mastic		4-8 100-200	229	until
	T	Devthane® 379UVA Aliphatic Urethane Enamel		2-3 50-75	255	fall 2009
	<sup>1</sup> Footnote 3 mils max DFT, 24 hrs min cure, zero max thin					

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

- NOTE 1** NEPCOAT- NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, DE, ME, MA, NH, NJ, NY, PA, RI, VT
- 2 NTPEP- Nat'l Transport'n Product Evaluat'n Program. View Structural Steel Coating test data at <http://data.ntpep.org>.
  - 3 Accelerated lab and field testing of coating systems is performed according to AASHTO NTPEP R-31 criteria.
  - 4 Systems are accepted for use on NEW and 100% BARE EXISTING steel for bridges cleaned by abrasive blasting.
  - 5 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00).
  - 6 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria.
  - 7 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.
  - 8 DFT values are recommended by the manufacturer.
  - 9 Any change in coating formulation from that tested will result in removal of the system from the QPL.
  - 10 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 ZR= Zinc Rich



# NEPCOAT Qualified Products List B

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

NTPEP System No.	Coats	3-COAT SYSTEM TESTED AND ACCEPTED	Slip Coef Class	Manuf'r Coating DFT (min/max) mil micron	VOC Tested g/L	QPL Accepted Dates
<b>NEPCOAT LIST B - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish</b>						
SSC(03)-02 (B7-97)		CARBOLINE COMPANY				from
	P	Carbozinc <sup>®</sup> 859 Organic Zinc Rich Epoxy Primer	B <sup>1</sup>	3-10 75-225	326	2/15/05
	I	Carboguard <sup>®</sup> 888 Epoxy Polyamide		3-10 75-225	331	until
	T	Carbothane 133 HB Aliphatic Polyurethane		3-7 75-175	370	spring 2010
	<sup>1</sup> Footnote 6 mils max DFT, 4 days min cure, 10% vol max thin					
SSC(03)-05*		AMERON INTERNATIONAL				from
	P	Amercoat <sup>®</sup> 68HS Zinc Rich Epoxy Primer	A <sup>1</sup>	1-3 25-75	240	11/17/05
	I	Amercoat <sup>®</sup> 399 Fast Drying Epoxy		4-8 100-200	182	until mtg.
	T	Amercoat <sup>®</sup> 450H Gloss Aliphatic Polyurethane		2-3 50-75	303	fall 2008
	<sup>1</sup> Footnote Slip coefficient does not meet Class B requirements					
SSC(03)-11*		PPG INDUSTRIES				from
	P	Aquapon <sup>®</sup> 97-670 Zinc Rich Primer ABC	B <sup>1</sup>	3-4 76-102	383	2/15/05
	I	Pitt-Guard <sup>®</sup> 97-946 All Weather DT Rust Epoxy		4-7 102-178	241	until
	T	Pitthane <sup>®</sup> 95-8800 HB Urethane Enamel		2-5 51-127	267	spring 2008
	<sup>1</sup> Footnote 4 mils max DFT, 24 hrs min cure					
SSC(03)-12*		INTERNATIONAL PAINT INC				from
	P	Interzinc <sup>®</sup> 52 Epoxy Zinc Rich	∅	2-3 50-75	364	2/15/05
	I	Intergard 475HS Epoxy	(not	4-8 100-200	191	until
	T	Interfine <sup>®</sup> 979 Polysiloxane	tested)	3-6 75-150	206	spring 2008
	∅ Footnote The test was not performed.					
(continues)	(List B continues)					(List B continues)

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

NOTE 1 NEPCOAT- NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, DE, ME, MA, NH, NJ, NY, PA, RI, VT

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- 5 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00).
- 6 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria.
- 7 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.
- 8 DFT values are recommended by the manufacturer.
- 9 Any change in coating formulation from that tested will result in removal of the system from the QPL.
- 10 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 ZR= Zinc Rich



# NEPCOAT Qualified Products List B

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

NTPEP System No.	Coats	Slip Coef	Manuf'r Coating Class	VOC Tested g/L	QPL Accepted Dates
	<b>3-COAT SYSTEM</b>				
	<b>TESTED AND ACCEPTED</b>				

**NEPCOAT LIST B** - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish

SSC(04)-02*	CARBOLINE COMPANY				from	
P	Carbozinc <sup>®</sup> 859 Organic Zinc Rich Epoxy Primer	B <sup>1</sup>	3-10	75-250	327	11/17/05
I	Carboguard <sup>®</sup> 888 Epoxy Polyamide		3-8	75-200	320	until mtg.
T	Carbothane 133 LH Aliphatic Polyurethane		3-6	75-150	311	fall 2008
<sup>1</sup> Footnote 6 mils max DFT, 4 days min cure, 10% vol max thin						
SSC(04)-03*	SHERWIN WILLIAMS COMPANY					from
P	Zinc Clad <sup>®</sup> III HS Organic Zinc Rich Epoxy Primer	B <sup>1</sup>	3-5	75-125	330	11/17/05
I	Macropoxy <sup>®</sup> 646 Fast Cure Epoxy		5-10	125-250	191	until mtg.
T	Acrolon <sup>™</sup> 218 HS Acrylic Polyurethane		3-6	75-150	280	fall 2008
<sup>1</sup> Footnote 5 mils max DFT, 7 days min cure, zero thinner						
SSC(05)-02*	MAB PAINTS					from
P	Ply-Tile Epoxy Organic Zinc Rich Primer	---	3-5	75-125	404	10/5/06
I	Ply-Mastic 650 HB Epoxy Coating		4-6	100-150	270	until
T	Ply-Thane 890 HS Aliphatic Acrylic Urethane		2-4	50-100	256	fall 2009
<sup>1</sup> Footnote Slip coefficient is under retest						

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

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  - 3 Accelerated lab and field testing of coating systems is performed according to AASHTO NTPEP R-31 criteria.
  - 4 Systems are accepted for use on NEW and 100% BARE EXISTING steel for bridges cleaned by abrasive blasting.
  - 5 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00).
  - 6 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria.
  - 7 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.
  - 8 DFT values are recommended by the manufacturer.
  - 9 Any change in coating formulation from that tested will result in removal of the system from the QPL.
  - 10 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.

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, 10/5/06 R1

Key P= Primer I= Intermediate T= Topcoat HB= High Build HS= High solids DT= Direct to ZR= Zinc Rich



# NEPCOAT Qualified Products List C

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

NTPEP System No.	Coats	2-COAT SYSTEM <sup>10</sup> TESTED AND ACCEPTED	Slip Coef Class	Manuf'r Coating DFT (min/max) mil micron	VOC Tested g/L	QPL Accepted Dates
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**NEPCOAT LIST C** - ORGANIC Zinc Rich Primer / ----- / Topcoat

SSC(02)-04*	SHERWIN WILLIAMS COMPANY					from
P	Corothane <sup>®</sup> I Galvapac One Pack Zinc Primer		B <sup>1</sup>	3.5-4 90-100	298	4/19/05
I	-----			--- ---	---	until
T	Fast Clad <sup>®</sup> Urethane			6-9 150-225	263	spring 2008
<sup>1</sup> Footnote 4 mils max DFT, 24 hrs min cure						

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

NOTE 1 NEPCOAT- NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, DE, ME, MA, NH, NJ, NY, PA, RI, VT

2 NTPEP- Nat'l Transport'n Product Evaluat'n Program. View Structural Steel Coating test data at <http://data.ntpep.org>.

3 Accelerated lab and field testing of coating systems is performed according to AASHTO NTPEP R-31 criteria.

4 Systems are accepted for use on NEW and 100% BARE EXISTING steel for bridges cleaned by abrasive blasting.

5 (Ax-97) systems comply with NEPCOAT 97 Testing Standard (6/1/97) & Acceptance Criteria (3/30/00).

6 SSC(yr)-xx systems comply with AASHTO R-31 Evaluation Practice & NEPCOAT Acceptance Criteria.

7 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.

8 DFT values are recommended by the manufacturer.

9 Any change in coating formulation from that tested will result in removal of the system from the QPL.

10 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 ZR= Zinc Rich



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

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

Delamination	Acceptance criteria: no delamination allowed
Rust / Blistering	Acceptance criteria (max.):

	//----- RUST CRITERIA -----//	-- BLISTER CRITERIA--						
<u>Primer</u>	<u>System</u>	<u>@ Hrs</u>	<u>max creep</u>	<u>ave creep</u>	<u>% length</u>	<u>in scribe</u>	<u>@ Hrs</u>	<u>Convers'n #</u>
IOZ	P-I-T	5040	4 mm	2 mm	not req'd	not req'd	4032	9
OZ	P-I-T	5040	8 mm	4 mm	not req'd	not req'd	4032	8

GLOSS value	Acceptance criteria: Report results only
GLOSS % Retent'n	Acceptance criteria: Report results only
COLOR Change, Δe	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

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, 10/5/06 R1

Acceptance criteria: Report results