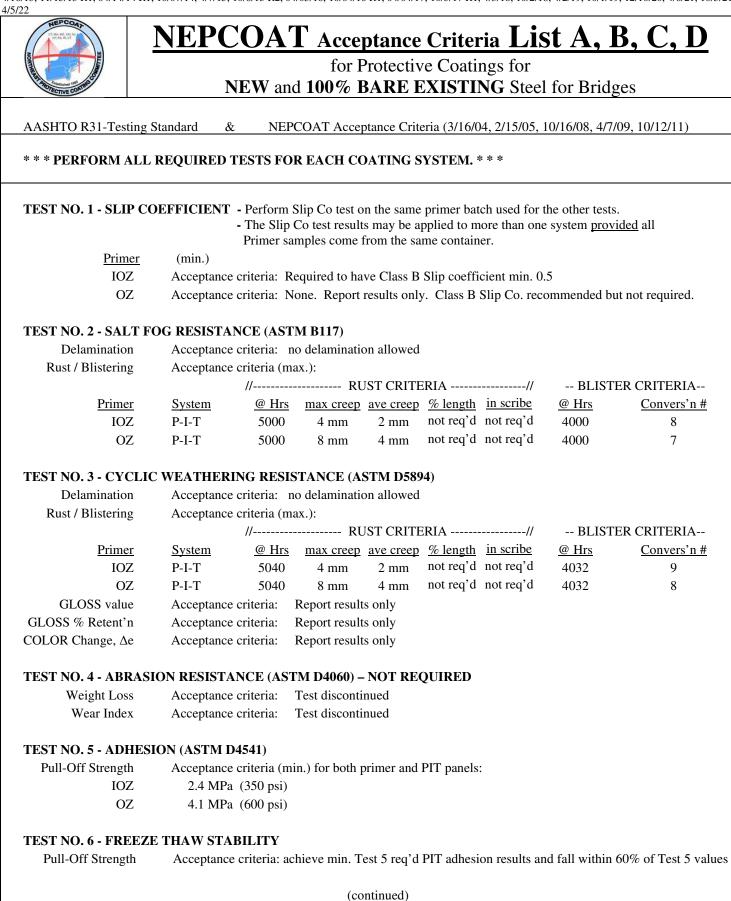
		NEPCOAT Qualified Products List A for Protective Coatings for NEW and 100% BARE EXISTING Steel for Bridges								
										NTPEP
		2 COAT SVETEM	-		-		-			
System	a .	3-COAT SYSTEM	Coef		nin/max)	Tested	Accepted			
No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates			
NEPCOAT LIST ${ m A}$ - INORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish										
SSC(17)-03	*	INTERNATIONAL PAINT INC					from			
SSC(10)-02	Primer	Interzinc [®] 22HS Inorganic Zinc Rich	\mathbf{B}^{1}	2.5-3	62-75	311	04/02/19			
	Interm	Intergard 475HS Epoxy		4-8	100-200	188	until mtg.			
	Topcoat	Interthane [®] 870 UHS Polyurethane		3-5	75-125	257 es	spring 2023			
	¹ Footnote	5 mils max DFT, 24 hours min cure, zero thinner								
SSC(19)-03		CARBOLINE COMPANY	1				from			
	Primer	Carbozinc [®] 11 HS Inorganic Zinc Primer	\mathbf{B}^{1}	2-6	50-150	289	12/10/20			
	Interm	Carboguard [®] 893 Epoxy Intermediate		3-6	75-150	225	until mtg.			
	-	Carbothane [®] 133 LV Aliphatic Polyurethane		3-5	75-125	252	fall 2024			
	roomote	6 mils max DFT, 18 hrs min cure, 12% max thinner								
¹ Footnote	Informati	on from the Slip-Coefficient and Creep Resistance Tes	t Certifica	te is give	en for use w	/ primed b	polted connections.			
NOTE 1		AT- NORTHEAST PROTECTIVE COATINGS COM		-		-				
2		Nat'l Transport'n Product Evaluat'n Program). See Str								
3		ted lab and field testing of coating systems is performed			•	-				
4	Systems a	are accepted for use on NEW and 100% BARE EXIST	ING steel	for bridg	es cleaned	by abrasiv	e blasting.			
5										
6										
	state ree	quirements for VOC limits may differ.								
7 Recommended DFT values are listed by manufacturer (see Product Data Sheets.)										
8	Any chan	ge in coating formulation from that tested will result in	n removal	of the sys	stem from t	he QPL.				
9		QPL term is seven years starting from the date of accep					-			
*	-	ce is CONDITIONAL pending submission within four	•		•	•	-			
		dges painted with the paint system must be submitted v		-	ee Accepta	nce Criter	ia.			
		R-31-09 Section 12.1, Requalification Testing, has been	en discont	inued.						
es	VOC valu	ue adjusted for exempt solvents								

		for Protectiv		•						
PARTICITYE CONT	RO I	NEW and 100% BARE E	XIST			U				
NTPEP			Slip	Manuf	'r Coating	VOC	QPL			
System		3-COAT SYSTEM	Coef	DFT (1	nin/max)	Tested	Accepted			
No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates			
NEPCOAT LI	ST B	- ORGANIC Zinc Rich Primer / Epoxy or Urethane Inte	ermediat	e / Alipha	atic Urethau	ne Finish				
SSC(15)-07		SHERWIN WILLIAMS COMPANY					from			
Р	rimer	Zinc Clad [®] 4100 Organic Zinc Rich Epoxy Primer	\mathbf{B}^{1}	3-5	75-125	319	10/3/17			
I	nterm	Macropoxy [®] 646 Fast Cure Epoxy		3-10	75-250	265	until mtg.			
Т	opcoat	Hi-Solids Polyurethane 250		3-4	75-100	234 es	spring 2025			
1 Fe	ootnote	5 mils max DFT, 72 hours min cure, 5% max thinner								
SSC(18)-08 *		WASSER COATINGS					from			
SSC(10)-05 P	rimer	MC-Zinc 100	\mathbf{B}^{1}	3-5	75-125	140 es	10/01/19			
I	nterm	MC-Miomastic 100		3-5	75-125	106 es	until mtg.			
Т	opcoat	MC-Ferrox A 100		2-4	50-100	149 es	fall 2023			
1 Fe	ootnote	5.5 mils max DFT, 72 hrs min cure, $10%$ max thinner								
SSC(18)-09 *		SHERWIN WILLIAMS COMPANY					from			
Р	rimer	Zinc Clad [®] 4100 Organic Zinc Rich Epoxy Primer	\mathbf{B}^{1}	3-5	75-125	336	10/01/19			
I	nterm	Macropoxy [®] 646 Fast Cure Epoxy		3-10	75-250	229	until mtg.			
Т	opcoat	Acrolon [™] 218 HS Acrylic Polyurethane		3-6	75-150	276	fall 2023			
1 Fe	ootnote	5 mils max DFT, 72 hours min cure, 5% max thinner								
SSC(18)-11 *		SHERWIN WILLIAMS COMPANY					from			
P	rimer	Zinc Clad [®] 4100 Organic Zinc Rich Epoxy Primer	\mathbf{B}^{1}	3-5	75-125	333	10/01/19			
I	nterm	Steel Spec Epoxy		3-8	75-200	290	until mtg.			
		Acrolon [™] 218 HS Acrylic Polyurethane		3-6	75-150	254	fall 2023			
	-	5 mils max DFT, 72 hours min cure, 5% max thinner								
(continues)		(List B continues)								
¹ Footnote In	ıformati	on from the Slip-Coefficient and Creep Resistance Test	Certifica	te is give	en for use w	/ primed b	olted connectic			
		T- NORTHEAST PROTECTIVE COATINGS COMM				-				
2 N	TPEP ()	Nat'l Transport'n Product Evaluat'n Program). See Stru	ctural St	teel Coati	ng test data	a at http://d	ata.ntpep.org.			
3 A	ccelerat	ed lab and field testing of coating systems is performed	accordin	ig to AAS	SHTO NTP	EP R-31 ci	riteria.			
4 Sy	ystems a	are accepted for use on NEW and 100% BARE EXISTIN	NG steel	for bridg	es cleaned	by abrasive	e blasting.			
5 S	SC(yr)-z	xx systems comply with AASHTO R-31 Evaluation Pra	ctice & N	NEPCOA	T Acceptar	nce Criteria	- I.			
6 V	OC valu	es are lab test results using unthinned samples. NEPCO	OAT may	x VOC lii	nit is 420 g	g/L (3.5 lb/g	gal). Individua			
	state red	quirements for VOC limits may differ.								
7 R	ecomme	commended DFT values are listed by manufacturer (see Product Data Sheets.)								
		ge in coating formulation from that tested will result in			stem from t	he QPL.				
	-	PL term is seven years starting from the date of accept		-			meeting.			
		ce is CONDITIONAL pending submission within four					-			
	-	dges painted with the paint system must be submitted w			-	-	-			
		R-31-09 Section 12.1, Requalification Testing, has been		-	r a					
1.		, , , , , , , , , , , , , , , , , , , ,								

NEPCOAT Qualified Products List B for Protective Coatings for NTPEP Slip Manuf'r Coating VOC QP System Coating TESTED AND ACCEPTED Class mil mil micron g/L Dat NEPCOAT LIST B CARBOLINE COMPANY fro Primer <th col<="" th=""><th>PL pted</th></th>	<th>PL pted</th>	PL pted
NTPEP Slip Manuf'r Coating VOC QP System 3-COAT SYSTEM Coef DFT (min/max) Tested Acception No. Coats TESTED AND ACCEPTED Class mil micron g/L Date NEPCOAT LIST B - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish SSC(19)-02 * CARBOLINE COMPANY fro Primer Carbozinc® 859 Organic Zinc Rich Epoxy Primer B ¹ 3-10 75-250 342 12/10	pted	
NTPEP Slip Manuf'r Coating VOC QP System 3-COAT SYSTEM Coef DFT (min/max) Tested Acception No. Coats TESTED AND ACCEPTED Class mil micron g/L Date NEPCOAT LIST B - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish SSC(19)-02 * CARBOLINE COMPANY fro Primer Carbozinc® 859 Organic Zinc Rich Epoxy Primer B ¹ 3-10 75-250 342 12/10	pted	
No. Coats TESTED AND ACCEPTED Class mil micron g/L Date NEPCOAT LIST B - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish SSC(19)-02 * CARBOLINE COMPANY fro Primer Carbozinc® 859 Organic Zinc Rich Epoxy Primer B ¹ 3-10 75-250 342 12/10	-	
NEPCOAT LIST B - ORGANIC Zinc Rich Primer / Epoxy or Urethane Intermediate / Aliphatic Urethane Finish SSC(19)-02 * CARBOLINE COMPANY from Primer Carbozinc [®] 859 Organic Zinc Rich Epoxy Primer B ¹ 3-10 75-250 342 12/10	tes	
SSC(19)-02 * CARBOLINE COMPANY fro Primer Carbozinc [®] 859 Organic Zinc Rich Epoxy Primer B ⁻¹ 3-10 75-250 342 12/10		
SSC(19)-02 *CARBOLINE COMPANYfroPrimerCarbozinc® 859 Organic Zinc Rich Epoxy PrimerB 13-1075-25034212/10		
Primer Carbozinc [®] 859 Organic Zinc Rich Epoxy Primer B ¹ 3-10 75-250 342 12/10		
	m	
Interm Carboguard [®] 893 Epoxy Intermediate 3-6 75-150 218 until	0/20	
interim Caroogaala 075 Epony interintediate 50 75 150 210 ulitity	mtg.	
Topcoat Carbothane® 133 LV Aliphatic Polyurethane3-576-127254fall 2	2024	
¹ Footnote 6 mils max DFT, 6 days min cure, 10% vol max thin		
¹ Footnote Information from the Slip-Coefficient and Creep Resistance Test Certificate is given for use w/ primed bolted con	nections.	
NOTE 1 NEPCOAT- NORTHEAST PROTECTIVE COATINGS COMMITTEE of CT, DE, ME, MA, NH, NJ, NY, PA, F		
2 NTPEP (Nat'l Transport'n Product Evaluat'n Program). See Structural Steel Coating test data at http://data.ntpep		
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.	
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). Indi	ividual	
state requirements for VOC limits may differ.		
7 Recommended DFT values are listed by manufacturer (see Product Data Sheets.)		
8 Any change in coating formulation from that tested will result in removal of the system from the QPL.		
9 The full QPL term is <u>seven</u> years starting from the date of acceptance until the next biannual NEPCOAT meeting.		
* Acceptance is CONDITIONAL pending submission within <u>four</u> years of successful 2-year field history. A startur	p list of	
five bridges painted with the paint system must be submitted within two years. See Acceptance Criteria.		
Note that R-31-09 Section 12.1, Requalification Testing, has been discontinued.		
es VOC value adjusted for exempt solvents		

	MITTER 20	NEPCOAT Qualified Products List C for Protective Coatings for NEW and 100% BARE EXISTING Steel for Bridges								
ELST PROTECTIVE	COATTING									
NTPEP			Slip		"r Coating	VOC	QPL			
System		2-COAT SYSTEM	Coef	DFT (min/max)	Tested	Accepted			
No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates			
NEPCOAT LIST C - ORGANIC Zinc Rich Primer / / Topcoat										
SSC(18)-03	*	SHERWIN WILLIAMS COMPANY					from			
~ /	Primer	Zinc Clad [®] 4100 Organic Zinc Rich Epoxy Primer	\mathbf{B}^{1}	3-5	75-125	318	04/02/19			
	Interm						until mtg.			
	-	Sher-Loxane 800 Polysiloxane		4-6	100-150	122	spring 2023			
	¹ Footnote	5 mils max DFT, 72 hours min cure, 5% thinner								
SSC(19)-05	*	SHERWIN WILLIAMS COMPANY					from			
33C(19)-03	Primer	Zinc Clad [®] 4100 Organic Zinc Rich Epoxy Primer	B ¹	3-5	75-125	329	04/06/21			
	Interm		Ъ				until mtg.			
		Envirolastic 940 LV Polyaspartic		6-9	150-225	217	spring 2025			
	-	5 mils max DFT, 72 hours min cure, 5% thinner					1 6			
¹ Footnote	Informati	on from the Slip-Coefficient and Creep Resistance Te	st Certifica	te is giv	en for use w	/ primed ł	olted connections.			
NOTE 1		T- NORTHEAST PROTECTIVE COATINGS COM		U						
2		Nat'l Transport'n Product Evaluat'n Program). See St								
3	Accelerat	ed lab and field testing of coating systems is performe	d accordin	ig to AA	SHTO NTP	EP R-31 c	riteria.			
4	-	are accepted for use on NEW and 100% BARE EXIST			-	-	-			
5		xx systems comply with AASHTO R-31 Evaluation Provide the Provide			-					
	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		ended DFT values are listed by manufacturer (see Prod								
8	-	ge in coating formulation from that tested will result i		-			maatina			
9 *	Acceptan five brie	QPL term is <u>seven</u> years starting from the date of accept is CONDITIONAL pending submission within <u>fou</u> dges painted with the paint system must be submitted	<u>r</u> years of s within two	successfu years. S	ıl 2-year fiel	ld history.	A startup list of			
		R-31-09 Section 12.1, Requalification Testing, has be	en discont	inued.						
es	VOC valı	a adjusted for exempt solvents								

3							st D		
Commenter of the		for Protective Coatings for NEW and 100% BARE EXISTING Steel for Bridges							
NTPEP	VE COM!	INE W and 100% BARE	Slip		r Coating	VOC	QPL		
System		2-COAT SYSTEM	Coef		min/max)	Tested	Accepted		
No.	Coats	TESTED AND ACCEPTED	Class	mil	micron	g/L	Dates		
NEPCOAT	LIST D	- INORGANIC Zinc Rich Primer / / Topcoat				-			
SSC(18)-02	2 *	SHERWIN WILLIAMS COMPANY					from		
	Primer	Zinc Clad [®] II Plus Inorganic Zinc Rich Coating	B ¹	2-4	50-100	325	04/02/19		
	Interm						until mtg.		
	-	Sher-Loxane 800 Polysiloxane 5 mils max DFT, 72 hours min cure, 5% thinner		4-6	100-150	119	spring 2023		
		on from the Slip-Coefficient and Creep Resistance To T- NORTHEAST PROTECTIVE COATINGS COM		-		-			
¹ Footnote NOTE 1 2	NEPCOA	on from the Slip-Coefficient and Creep Resistance Te T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S	IMITTEE o	of CT, D	E, ME, MA	, NH, NJ, I	NY, PA, RI, VT		
NOTE 1	NEPCOA NTPEP (Accelerat	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform	IMITTEE of Structural S ed accordir	of CT, D teel Coat ng to AA	E, ME, MA, ing test data SHTO NTP	, NH, NJ, 1 a at http://c EP R-31 c	NY, PA, RI, VT lata.ntpep.org. riteria.		
NOTE 1 2 3 4	NEPCOA NTPEP (Accelerat Systems	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform are accepted for use on NEW and 100% BARE EXIS	IMITTEE of Structural S ed accordir TING steel	of CT, D teel Coat ng to AA for bridg	E, ME, MA ing test data SHTO NTP ges cleaned	, NH, NJ, I a at http://c EP R-31 c by abrasiv	NY, PA, RI, VT lata.ntpep.org. riteria. e blasting.		
NOTE 1 2 3 4 5	NEPCOA NTPEP (Accelerat Systems a SSC(yr)-	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform are accepted for use on NEW and 100% BARE EXIS xx systems comply with AASHTO R-31 Evaluation F	IMITTEE of Structural S ed accordir TING steel Practice & I	of CT, D teel Coat ng to AA for bridg NEPCOA	E, ME, MA ing test data SHTO NTP ges cleaned AT Acceptar	, NH, NJ, 1 a at http://c EP R-31 c by abrasiv ace Criteria	NY, PA, RI, VT lata.ntpep.org. riteria. e blasting. a.		
NOTE 1 2 3 4	NEPCOA NTPEP (Accelerat Systems a SSC(yr)- VOC value	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform are accepted for use on NEW and 100% BARE EXIS	IMITTEE of Structural S ed accordir TING steel Practice & I	of CT, D teel Coat ng to AA for bridg NEPCOA	E, ME, MA ing test data SHTO NTP ges cleaned AT Acceptar	, NH, NJ, 1 a at http://c EP R-31 c by abrasiv ace Criteria	NY, PA, RI, VT lata.ntpep.org. riteria. e blasting. a.		
NOTE 1 2 3 4 5 6 7	NEPCOA NTPEP (Accelerat Systems a SSC(yr)- VOC value state rea Recommendation	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform are accepted for use on NEW and 100% BARE EXIS for systems comply with AASHTO R-31 Evaluation F ues are lab test results using unthinned samples. NEP quirements for VOC limits may differ. ended DFT values are listed by manufacturer (see Pro-	IMITTEE (Structural S ed accordir TING steel Practice & I COAT max	of CT, D teel Coat for bridg NEPCOA x VOC li Sheets.)	E, ME, MA, ing test data SHTO NTP ges cleaned at Acceptar mit is 420 g	, NH, NJ,] a at http://c EP R-31 c by abrasiv ace Criteria g/L (3.5 lb/	NY, PA, RI, VT lata.ntpep.org. riteria. e blasting. a.		
NOTE 1 2 3 4 5 6 7 8	NEPCOA NTPEP (Accelerat Systems : SSC(yr)- VOC values state rea Recommandary characteristics	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform are accepted for use on NEW and 100% BARE EXIS for systems comply with AASHTO R-31 Evaluation F les are lab test results using unthinned samples. NEP quirements for VOC limits may differ. ended DFT values are listed by manufacturer (see Pro- ge in coating formulation from that tested will result	IMITTEE of Structural S ed accordin TING steel Practice & I COAT max oduct Data S in removal	of CT, D teel Coat ng to AA for bridg NEPCOA x VOC li Sheets.) of the sy	E, ME, MA, ing test data SHTO NTP ges cleaned AT Acceptar mit is 420 g	, NH, NJ, 1 a at http://d EP R-31 c by abrasiv nce Criteria //L (3.5 lb/ he QPL.	NY, PA, RI, VT lata.ntpep.org. riteria. e blasting. a. (gal). Individual		
NOTE 1 2 3 4 5 6 7	NEPCOA NTPEP (Accelerat Systems a SSC(yr)- VOC value state rea Recomme Any char The full (Acceptan five bri	T- NORTHEAST PROTECTIVE COATINGS COM Nat'l Transport'n Product Evaluat'n Program). See S ed lab and field testing of coating systems is perform are accepted for use on NEW and 100% BARE EXIS for systems comply with AASHTO R-31 Evaluation F ues are lab test results using unthinned samples. NEP quirements for VOC limits may differ. ended DFT values are listed by manufacturer (see Pro-	IMITTEE of Structural S ed accordin TING steel Practice & I COAT main oduct Data S in removal sptance unti- ar years of sin within two	of CT, Di teel Coat for bridg NEPCOA x VOC li Sheets.) of the sy successfu y years. S	E, ME, MA, ing test data SHTO NTP ges cleaned T Acceptar mit is 420 g stem from t t biannual N al 2-year fie	, NH, NJ, 1 a at http://c EP R-31 c by abrasiv ace Criteria (/L (3.5 lb/ he QPL. NEPCOAT ld history.	NY, PA, RI, VT lata.ntpep.org. riteria. e blasting. a. 'gal). Individual ' meeting. A startup list o		





NEPCOAT Acceptance Criteria List A, B, C, D

for Protective Coatings for

NEW and 100% BARE EXISTING Steel for Bridges

AASHTO R31-09 Testing Standard & NEPCOAT Acceptance Criteria (3/16/04, 2/15/05, 10/16/08, 4/7/09, 10/12/11)

TEST NO. 7 - COATING IDENTIFICATION TESTS

VOCAcceptance criteria:Max. 420 g/L (3.5 lb/gal). Individual state requirements may differ.Coating propertiesAcceptance criteria:Report onlyCoating thicknessAcceptance criteria:A 2-coat system shall be tested and applied at min. total 9 mils DFT.

TEST NO. 8 - ATMOSPHERIC EXPOSURE (TWO YEAR) at outdoor site: - NOT REQUIRED

Acceptance criteria: Test discontinued

ITEM NO. 9 - FIELD HISTORY (TWO YEAR)

Acceptance criteria: (All systems after SSC 06-05) The coating manufacturer shall submit two notifications;

- (1) a startup list within two years of product acceptance identifying five bridges (in a cold/wet climatic region) which have been coated with a minimum of 400 liters (100 gallons) of the coating system (i.e. total volume of primer, intermediate and topcoat); and
- (2) the same list of bridges within four years of product acceptance after the system has two years (min.) of successful field performance. "Successful performance" is simply defined as whether the Owner is satisfied with its application and performance to date, and whether the Owner would recommend the use of the coating again.

PRODUCT VERIFICATION TESTING

AASHTO R-31-09 Appendix X1 recommends that the Owner perform product verification testing for determining if the coatings supplied to a project are the same quality as the manufacturer's materials originally tested and certified for acceptance.

The R-31-09 Test 7- Coating Identification Tests are described in Sect. 9.7 and Appendix X1, and the lab test results are given in NTPEP DataMine (<u>http://data.ntpep.org</u>) along with the manufacturer's listed values.

When the Owner performs verification testing, the following tolerances apply:

Verification Test	R-31-09 Section	<u>R-31-09 App X1</u>	ASTM Test	DataMine Test 7	Tolerance *
Total solids (% by mass)	9.7.9.1	X1.1.1.6	D 2369	Line 2	±5 %
Pigment (% by mass)	9.7.9.5	X1.1.1.8	D 2371	" 3	±5 %
Mass per volume (g/L)	9.7.9.8	X1.1.1.5	D 1475	" 6	±2 %
Viscosity (Stormer)	9.7.9.9	X1.1.1.4	D 562	" 7	±8 %

* The tolerance is applied to the DATAMINE "test result" value (not the manufacturer's "listed value"). These tolerances apply to the primer and intermediate coats each in their mixed condition (not Part A, Part B components). For topcoats, if the color is different from the original color in NTPEP testing, then these tolerances apply to the Owner's verification test values the first time a particular color is used.

Note 1. Test Criteria:Two of three panels must pass for each test to pass. (e.g. Tests 2, 3, 5, 6)Note 2. Materials:NEPCOAT does not accept waterborne coatings for the QPL for use in the Northeast States.Note 3. Field History:If available, include an existing bridge(s) with field-applied coatings.