

Approval Date: May 1, 1991  
 This Revision: November 2, 2020

ALABAMA DEPARTMENT OF TRANSPORTATION

LIST III-1  
 COATING SYSTEMS FOR STRUCTURAL STEEL

SYSTEM NUMBER	PRODUCT	COAT	VENDOR CODE	DATE APPROVED
<b>SYSTEM 1 COATINGS</b> <i>(Note 3)</i>				
SYSTEM 1A (SOLVENT BORNE INORGANIC ZINC - ACRYLIC - ACRYLIC)				
1A-2	CARBOZINC 11 HS CARBOCRYLIC 3350 CARBOCRYLIC 3350	PRIME MID TOP	2	07/91
1A-3	CARBOZINC 12 VOC CARBOCRYLIC 3350 CARBOCRYLIC 3350	PRIME MID	2	08/06/12
1A-9	ZINC-ITE 9030 BAN-RUST 8140 BAN-RUST 8140	PRIME MID TOP	10	07/91
1A-12	P-139 W-112 W-134	PRIME MID TOP	6	11/93
1A-13	ZINC CLAD II HS B69VZ3/B69VZ1/B69D11 DTM B66 SERIES SEMI-GLOSS DTM B66 SERIES GLOSS	PRIME MID TOP	5	06/03/97
1A-16	ELITE 1312 ELITE 154 ELITE 154	PRIME MID TOP	6	04/05/99
1A-17	INTERZINC 22HS INTERCRYL 530 INTERCRYL 530	PRIME MID TOP	3	09/04/01
1A-18	INTERZINC 22 INTERCRYL 530 INTERCRYL 530	PRIME MID TOP	3	09/04/01
1A-19	ZINC CLAD II PLUS B69VZ12/B69VZ13/B69D11 <b>or</b> ZINC CLAD II PLUS B69VZ12/B69VZ15/B69D11 DTM ACRYLIC B66-200 SERIES DTM ACRYLIC B66-100 SERIES	PRIME MID TOP	5	05/07/07
1A-20	ZINC CLAD II LV B69VZ19/B69D11 SHER-CRYL HPA B66-350 SERIES SHER-CRYL HPA B66-300 SERIES	PRIME MID TOP	5	05/07/07
*1A-21	ZINC CLAD II PLUS B69VZ12/B69VZ15/B69D11 FAST CLAD HB ACRYLIC B66-410 SERIES	PRIME TOP	5	03/08/12
*1A-22	ZINC CLAD DOT FAST CLAD HB ACRYLIC	PRIME TOP	5	06/04/13

**\*These 2 coating zinc-acrylic topcoat systems have been evaluated and approved for use as a system that will provide corrosion protection performance equal to a 3 coating inorganic zinc-acrylic-acrylic system.**

SYSTEM NUMBER	PRODUCT	COAT	VENDOR CODE	DATE APPROVED
<b>1B SYSTEMS</b> (INORGANIC ZINC - EPOXY - URETHANE)				
1B-1	CATHA-COAT 302H BAR RUST 235 DEVTHANE 359	PRIME MID TOP	1	07/91
1B-6	CARBOZINC 11 HS CARBOGUARD 893 CARBOTHANE 133 HB	PRIME MID TOP	2	07/91
1B-10	ELITE 1312 ELITE 8915 ELITE 4045	PRIME MID TOP	6	07/91
1B-11	DIMECOTE 21-5 AMERCOAT 385 AMERSHIELD	PRIME MID TOP	7	07/91
1B-12	DIMECOAT 9HS AMERCOAT 385 AMERSHIELD	PRIME MID TOP	7	07/91
1B-14	ZINC-ITE 9020 CHEM-PON 2006 CHEM-THANE 2810	PRIME MID TOP	10	07/91
1B-17	CATHA-COAT 305 BAR RUST 235 DEVTHANE 359	PRIME MID TOP	1	07/91
1B-19	ZINC CLAD II HS B69VZ3/B69VZ1/B69D11 EPOXY MASTIC ALUMINUM II B62S100/B60V100 HI-SOLIDS URETHANE B65W300/B60V30 GLOSS	PRIME MID TOP	5	06/03/97
1B-20	ZINC CLAD II HS B69VZ3/B69VZ1/B69D11 EPOXY MASTIC ALUMINUM II B62S100/B60V100 COROTHANE II B65W200/B60V2 SATIN FINISH	PRIME MID TOP	5	06/03/97
1B-24	INTERZINC 22HS INTERGARD 475HS INTERTHANE 990HS	PRIME MID TOP	3	09/04/01
1B-25	INTERZINC 22 INTERCRYL 475HS INTERTHANE 990HS	PRIME MID TOP	3	09/04/01
1B-26	INTERZINC 22HS INTERSEAL 670HSAL INTERTHANE 990HS	PRIME MID TOP	3	09/04/01
1B-27	INTERZINC 22 INTERSEAL 670HSAL INTERTHANE 990HS	PRIME MID TOP	3	09/04/01
1B-30	ZINC CLAD DOT STEEL SPEC EPOXY INTERMEDIATE HI-SOLIDS POLYURETHANE	PRIME MID TOP	5	06/04/13

SYSTEM NUMBER	PRODUCT	COAT	VENDOR CODE	DATE APPROVED
<b>SYSTEM 1C COATINGS</b>				
(WATER BORNE INORGANIC ZINC - ACRYLIC - ACRYLIC)				
1C-1	CATHA COAT 309 DEVFLEX 633 DEVFLEX 604	PRIME MID TOP	1	07/91
1C-2	CARBOZINC 11 WB CARBOCRYLIC 3350 CARBOCRYLIC 3350	PRIME MID TOP	2	07/91
1C-3	ZINC CLAD XI DTM ACRYLIC, B66 SERIES DTM ACRYLIC, B66 SERIES	PRIME MID TOP	5	06/03/97
1C-7	IC531 ICA46 ICA46	PRIME MID TOP	9	02/92
1C-8	ZINC-ITE 9108 BAN-RUST 8140 BAN-RUST 8140	PRIME MID TOP	10	07/91
<b>SYSTEM 1D COATINGS</b>				
(WATER BORNE INORGANIC ZINC - URETHANE - URETHANE)				
1D-1	WASSER HI-TECH MC-M10ZINC MC-FERROX-B MC-FERROX-A	PRIME MID TOP	17	2/97
1D-2	COROTHANE I GALVAPAC ZINC PRIMER B65G10/ B69D210 COROTHANE I MASTIC B65R13 COROTHANE ALIPHATIC B65 SERIES	PRIME MID TOP	5	05/07/07
<b>SYSTEM 1E COATINGS</b>				
(SOLVENT BORNE ORGANIC ZINC - EPOXY - POLYURETHANE)				
1E-1	AMERCOAT 68HS AMERCOAT 399 AMERCOAT 450H	PRIME MID TOP	7	03/12
1E-2	ZINC CLAD III HS MACROPOXY 646 ACROLON 218 HS	PRIME MID TOP	5	06/04/13
1E-3	ZINC CLAD III HS STEEL SPEC EPOXY INTERMEDIATE HI-SOLIDS POLYURETHANE	PRIME MID TOP	5	08/05/13
*1E-4	ZINC CLAD III HS B69A100/B69V100/B69D11 FAST CLAD URETHANE B65-960 SERIES/B65V950	PRIME TOP	5	05/07/07
*1E-5	COROTHANE I GALVAPAC ZINC PRIMER B65G10/ B69D210 FAST CLAD URETHANE B65-960 SERIES/B65V950	PRIME TOP	5	05/07/07
1E-6**	ZINC CLAD III HS OAP ENVIROLASTIN 980PA	PRIME TOP	5	11/04/13
1E-7**	CARBOZINC 859 CARBOTHANE 133LH	PRIME TOP	2	01/05/15

SYSTEM NUMBER	PRODUCT	COAT	VENDOR CODE	DATE APPROVED
1E-8	ZINC CLAD 4100 MACROPOXY 646 ACROLOX 218 HS	PRIME MID TOP	5	10/05/20
1E-3	ZINC CLAD 4100 STEEL SPEC EPOXY INTERMEDIATE HI-SOLIDS POLYURETHANE	PRIME MID TOP	5	11/02/20

\*These 2 coating systems have been evaluated and approved for use as a system that will provide corrosion protection performance equal to a 3 coating system.

**SYSTEM 2 COATINGS** (Note 4)  
 (ACRYLIC - ACRYLIC - ACRYLIC)

2-1	B42 N 8 LATEX PRIME B42 N 8 LATEX PRIME B66 SERIES DTM ACRYLIC GLOSS	PRIME MID TOP	5	07/91
2-2	RUST MASTER PRO 5571 RUST MASTER PRO 5572 RUST MASTER PRO 5573	PRIME MID TOP	7	07/91
2-4	BAN-RUST 8100 BAN-RUST 8100 BAN-RUST 8140	PRIME MID TOP	10	07/91
2-5	BAN-RUST 8154 BAN-RUST 8154 BAN-RUST	PRIME MID TOP	10	07/91
2-6	4223 RED OXIDE MODIFIED ACRYLIC 4141 GRAY ACRYLIC 4142 GREEN ACRYLIC	PRIME MID TOP	13	05/95

**SYSTEM 3 COATINGS** (Note 5)  
 (EPOXY MASTIC)

3-1	CARBOMASTIC 15 (134 HS)		2	07/91
3-2	CARBOMASTIC 90 (134 HS)		2	07/91
3-4	ALUMINUM B62 S 10 / B60 V 11 (B65 W300 SERIES)		5	07/91
3-6	AMERLOCK 400AL (AMERCOAT 450 H)		7	07/91
3-8	CHEM-MASTIC 2214 (CHEM-THANE 2810)		10	07/91
3-10	BAR-RUST 235 (DEVTHANE 359)		1	04/92
3-11	BAR-RUST 236 (DEVTHANE 359)		1	04/92
3-12	DUPONT 25P (DUPONT 50P)		13	05/95
3-13	ELITE 7510 (ELITE 4045)		6	02/93

SYSTEM NUMBER	PRODUCT	COAT	VENDOR CODE	DATE APPROVED
3-15	EPOXY MASTIC ALUMINUM II B62S100/B60V100 (HI-SOILDS URETHANE B65W300/B60V30)		5	06/03/97
3-16	EPOXYMASTIC ALUMINUM II B62S100/B60V100 (COROTHANE II B65W200/B60V2)		5	06/03/97
3-19	CARBOMASTIC 90 (CARBOLINE 3350, ACRYLIC)		2	08/06/12
3-20	EPOXY MASTIC ALUMINUM II (B62S100/B60V100) (DTM ACRYLIC SERIES B66)		5	08/06/12
3-22	INTERSEAL 670HSAL (INTERTHANE 990HS URETHANE)		3	09/04/01
3-23	INTERSEAL 670HSAL (INTERGARD 475HS EPOXY) (INTERTHANE 990HS URETHANE)		3	09/04/01
3-24	INTERSEAL 670HSAL (INTERCRYL 530 ACRYLIC)		3	09/04/01
3-25	DURA-PLATE 235 B67-235/B67V235 SHERTHANE 2K URETHANE B65-150 SERIES/B65V150	PRIME TOP	5	05/07/07

**ZINC-RICH COATING FOR REPAIRING GALVANIZED ITEMS OR ZINC COATINGS**  
 (Available as a spray galvanizing coating in aerosol can form or a one gallon container for brush  
 and/or roll on application of the product.)

BRITE ZINC B-100	14	07/06/04
BRITE ZINC B-200	14	07/06/04
ZINC CLAD 5 ORGANIC ZINC RICH PRIMER B69A45	5	11/04/13
PRO-INDUSTRIAL ZINC CLAD COLD GALVANIZING AEROSOL PRIMER-PN143-0255	5	11/04/13

**NOTES**

*The following notes are for informational purposes only. They are primarily for the use of Division personnel to aid them in selecting which coatings are best suited for the existing conditions.*

- 1. All materials listed in any of these systems must be stored, handled, mixed, thinned and applied according to manufacturers recommendations as found in the cut sheets for the products. Any deviation from these recommendations may result in premature coating failures.*
- 2. NTPEP has been adopted as the accepted standard for allowing paint systems on the list*

*3. System 1 coatings. The inorganic zinc prime coat requires an SSPC SP-10 blast cleaning of the steel. The inorganic zinc also presents more problems in application and should be applied by painters thoroughly familiar with this type of coating.*

*SSPC-SP10 / NACE 2 Near-White Blast Cleaning*

*When viewed without magnification shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter of at least 95% of each unit area. Staining shall be limited to no more than 5 percent of each unit area, and may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coatings. Unit area shall be approximately 3 in. x 3 in. (9 sq. in.).*

*4. System 2 Coatings. These require a SSPC SP-6 level of surface preparation. These are acrylic coatings softer than the other systems and may be more subject to damage when handling early after spraying.*

*SSPC-SP6 / NACE 3 Commercial Blast Cleaning*

*When viewed without magnification, the surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter of at least 66-2/3% of unit area, which shall be a square 3 in. x 3 in. (9 sq. in.). Light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating in less than 33-1/3% of the unit area is acceptable.*

*5. System 3 coatings are high build materials shown to give adequate protection with a single coat. They supply adequate protection in most environments. These coatings can be applied over SSPC SP-6 cleaning or less in some cases. Some areas of the country allow the use of these coatings over surfaces that have been cleaned with high pressure water blast which leaves old paint in place. This can provide cost savings in surface preparation but the old paint must be thoroughly tested to assure that it is well bonded to the steel. If the old paint is not well bonded the new epoxy coating may pull the old coating loose from the steel resulting in failure of both coatings. Old coatings should be checked for bond to help prevent this. It is recommended that the painting contractor and coating supplier demonstrate that a proposed system's potential, to delimitate from the existing paint or to delaminate the existing paint from the steel, is minimal. This may be done by applying small test patches to the structure and performing a pull test such as the elcometer pull test at the end of thirty (30) days of cure.*

*These coatings are aluminum filled for additional rust protection. This means that the color of the finished paint will be a silver-gray. Epoxies are also subject to chalking when exposed to sunlight. These two items may be corrected by applying an approved top coat. Only coatings which have been recommended by the manufacturer, and which have been demonstrated to be compatible with the base coat may be used. The coatings listed in parenthesis with each System 3 coating are suitable for this purpose. If this additional coat is deemed necessary it should be specified on the plans and should be applied within 7 days of the epoxy coat to assure good bonding to the epoxy.*

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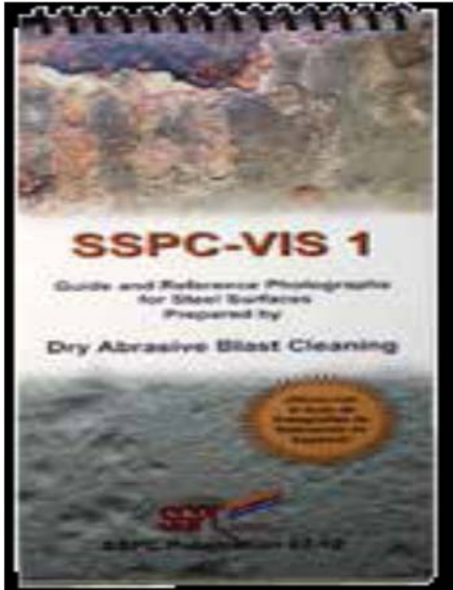
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	Iron or Steel	Galvanized	Aluminum	Prefinished Metals	Stainless Steel	Non Ferrous Metals	Plastic	Concrete	Previously Painted Surfaces
<b>SSPC-SP1 Solvent Cleaning</b>	X	X	X	X	X	X		X	X
<b>SSPC-SP2 Hand Tool Cleaning</b>	X	X							
<b>SSPC-SP3 Power Tool Cleaning</b>	X	X						X	
<b>SSPC-SP11 Power Tool Cleaning To Bare Material</b>	X								
<b>SSPC-SP7/NACE 4 Brush Off Blast Cleaning</b>	X	X	X	X	X	X		X	X
<b>SSPC-SP14/NACE 8 Industrial Blast Cleaning</b>	X								
<b>SSPC-SP6/NACE 3 Commercial Blast Cleaning</b>	X								
<b>SSPC-SP10/NACE 2 Near-White Blast Cleaning</b>	X								
<b>SSPC-SP5/NACE 1 White Metal Blast Cleaning</b>	X								
<b>SSPC-SP12/NACE 5 High and Ultra High-Pressure Water Jetting Prior to Coating</b>	X			X			X	X	X
<b>SSPC-SP13/NACE 6 Surface Preparation of Concrete</b>								X	

Surface preparation shall conform with the SSPC specifications as follows:  
 Solvent Cleaning SP-1  
 Hand Tool Cleaning SP-2

Power Tool Cleaning SP-3  
White Metal Blast Cleaning SP-5  
Commercial Blast Cleaning SP-6  
Brush-Off-Blast Cleaning SP-7  
Pickling SP-8  
Near-White Blast Cleaning SP-10  
SSPC-VIS 1" - SSPC Publication No. 02-12/ Guide and Reference Photographs for Steel Surfaces Prepared by Dry  
Abrasive Blast Cleaning )-PHONE 1-877-281-7772



***SURFACE PREPARATION STANDARDS***

*Your coatings supplier will always designate the degree of surface preparation required for the materials you are using. The basic standards for preparing metal substrates are a joint effort between the Society for Protective Coatings (SSPC) and the National Association of Corrosion Engineers International (NACE).*



**SSPC-SP1 Solvent Cleaning**

*Removal of all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants from steel surfaces with solvent, vapor, cleaning compound, alkali, emulsifying agent, or steam.*

**SSPC-SP2 Hand Tool Cleaning**

*Removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter by hand chipping, scraping, sanding, and wire brushing.*

**SSPC-SP3 Power Tool Cleaning**

*Removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter by power wire brushing, power sanding, power grinding, power tool chipping, and power tool descaling.*

**SSPC-SP5 / NACE 1 White Metal Blast Cleaning**

*When viewed without magnification, the surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter.*

**SSPC-SP6 / NACE 3 Commercial Blast Cleaning**

*When viewed without magnification, the surface shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter of at least 66-2/3% of unit area, which shall be a square 3 in. x 3 in. (9 sq. in.). Light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating in less than 33-1/3% of the unit area is acceptable.*

**SSPC-SP7 / NACE 4 Brush-Off Blast Cleaning**

*When viewed without magnification, the surface shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose coating. Tightly adherent mill scale, rust, and coating may remain on the surface. Mill scale, rust, and coating are considered tightly adherent if they cannot be removed by lifting with a dull putty knife.*

**SSPC-SP10 / NACE 2 Near-White Blast Cleaning**

*When viewed without magnification shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter of at least 95% of each unit area. Staining shall be limited to no more than 5 percent of each unit area, and may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coatings. Unit area shall be approximately 3 in. x 3 in. (9 sq. in.).*

**SSPC-SP11 Power Tool Cleaning to Bare Metal**

*When viewed without magnification, the surface shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint, oxides, corrosion products, and other foreign matter. Slight residues of rust and paint may be left in the lower portion of pits if the original surface is pitted. The surface profile shall not be less than 1 mil (25 microns).*

In the event if the Manufacturers recommendation conflict with the ALDOT Standard Specifications, the ALDOT Specifications will take precedent.

VENDORS

1	DEVOE COATINGS 13531 SOUTH CHOCTAW BATON ROUGE, LA 70815	2	CARBOLINE COMPANY 2150 SCHUETZ ROAD ST LOUIS, MO 63146	3.	INTERNATIONAL PAINT, INC 6001 ANTOINE DRIVE (77091) P.O. BOX 4806 HOUSTON, TX 77210-4806
5	THE SHERWIN WILLIAMS CO	6.	ELITE COATINGS COMPANY	7.	PPG PROTECTIVE AND

	101 PROSPECT AVENUE CLEVELAND, OH 44115		120 TREMON STREET GORDON, GA 31031		MARINE COATINGS 1377 OAKLEIGH DRIVE EAST POINT GA 30344 PHONE: 404-765-3721
9.	INORGANIC COATINGS 500 LAPP ROAD MALVERN, PA 19355	10.	INDMAR COATINGS CORPORATION P.O. BOX 456 317 WEST MAIN STREET WAKEFIELD, VA 23888	13.	STABLER PAINT COMPANY P O BOX 5405 BIRMINGHAM, AL 35207
14.	BRITE PRODUCTS 14650 DEQUINDRE DETROIT, MI 48212	17.	WASSER HI-TECH COATINGS 8041 SOUTH 228TH KENT, WA 98032		