



Carboline Architectural System Guide

Coating Applications Meeting the Requirements of LEED-NC v2.2 - EQ Credit 4.2

Low-Emitting Materials: Paints & Coatings

Performance Level	Surface Preparation (SSPC)	1 st Coat	Mils (Microns)	2 nd Coat	Mils (Microns)	3 rd Coat	Mils (Microns)
Steel <i>Exterior Applications</i>			Applications <i>Structural steel, miscellaneous metal fabrications and handrails.</i>				

New Construction - Gloss Finish

Good	SP 6	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)		
Good	SP 6	Carboguard 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	SP 10	Carbozinc 11WB <i>Inorganic Zinc</i>	3-5 (75-125)	Carboguard 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)
Excellent	SP 10	Carbozinc 11WB <i>Inorganic Zinc</i>	3-5 (75-125)	Carboxane 2000 <i>Hybrid Polysiloxane</i>	5-7 (125-175)		

New Construction - Satin/Semi-Gloss Finish

Good	SP 6	Carbocrylic 3358 <i>Water borne Acrylic</i>	2-3 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Good	SP 6	Carboguard 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 VOC <i>Polyurethane</i>	3-5 (75-125)		
Excellent	SP 10	Carbozinc 11WB <i>Inorganic Zinc</i>	3-5 (75-125)	Carboguard 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 VOC <i>Polyurethane</i>	3-5 (75-125)

Maintenance - Gloss Finish

Good	SP 2 or 3	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)		
Very Good	SP 2 or 3	Carbomastic 15 or 90 <i>Surface Tolerant Epoxy</i>	4-6 (100-150)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbomastic 15 (Spot Prime) <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)
Excellent	SP 2 or 3	Carbomastic 15 or 90 <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carboxane 2000 <i>Hybrid Polysiloxane</i>	5-7 (125-175)		

Maintenance - Satin/Semi-Gloss Finish

Good	SP 2 or 3	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Very Good	SP 2 or 3	Carbomastic 15 or 90 <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carbothane 133 VOC <i>Polyurethane</i>	3-5 (75-125)		
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbomastic 15 (Spot Prime) <i>Surface Tolerant Epoxy</i>	5-7 (125-175)	Carbothane 133 VOC <i>Polyurethane</i>	3-5 (75-125)



Performance Level	Surface Preparation (SSPC)	1 st Coat	Mils (Microns)	2 nd Coat	Mils (Microns)	3 rd Coat	Mils (Microns)
Steel <i>Interior Applications</i>			Applications <i>Structural steel, miscellaneous metal fabrications and handrails.</i>				

New Construction - Gloss Finish

Very Good	SP 6	Carbocrylic 3359DTM <i>Water-borne acrylic</i>	3-5 (75-125)	Carbocrylic 3359DTM <i>Water-borne acrylic</i>	3-5 (75-125)		
Excellent	SP 6	Carboguard 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)		

New Construction – Satin/Semi-Gloss Finish

Very Good	SP 6	Carbocrylic 3358 <i>Water borne Acrylic</i>	2-3 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Excellent	SP 6	Carboguard 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 VOC <i>Polyurethane</i>	3-5 (75-125)		

Maintenance - Gloss Finish

Very Good	SP 2 or 3	Carbocrylic 3359DTM <i>Water-borne acrylic</i>	3-5 (75-125)	<i>As required</i>			
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)		

Maintenance – Satin/Semi-Gloss Finish

Very Good	SP 2 or 3	Carbocrylic 3358 <i>Water-borne acrylic</i>	2-3 (50-75)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)	<i>As required</i>	
Excellent	SP 2 or 3	Rustbond Penetrating Sealer <i>Epoxy</i>	1-2 (25-50)	Carbothane 133 VOC <i>Polyurethane</i>	3-5 (75-125)		

Galvanized Steel – Weathered			Applications <i>Galvanized handrails, ducts and miscellaneous fabrications.</i>				
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Gloss Finish

Very Good	SP1	Galoseal WB <i>Waterborne acrylic</i>	0.5 - 1 (12-25)	Carbocrylic 3359DTM <i>Water borne acrylic</i>	3 (75)		
Very Good	SP1	Galoseal WB <i>Waterborne acrylic</i>	0.5 - 1 (12-25)	Carbothane 134 VOC <i>Polyurethane</i>	2-2.5 (50-62)		

Satin/Semi-Gloss Finish

Very Good	SP1	Galoseal WB <i>Waterborne acrylic</i>	0.5 - 1 (12-25)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Very Good	SP1	Galoseal WB <i>Waterborne acrylic</i>	0.5 - 1 (12-25)	Carbothane 133 VOC <i>Polyurethane</i>	3 (75)		



Concrete Walls / Ceilings	Applications Block or concrete poured walls in kitchen areas, locker rooms, food processing, warehouses, rest rooms, computer rooms, shower areas, and other process areas.
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**Waterborne Acrylic Finish
Epoxy Finish**

Moderate to Heavy Duty	Clean	Sanitile 755 <i>Solvent-free epoxy</i>	5-15 (125-375)	Sanitile 755 <i>Solvent-free epoxy</i>	5-15 (125-375)	<i>As required</i>	
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Secondary Containment for Chemical Exposure –Concrete	Applications Sumps, trenches, chemical containments, and floors around chemical and fuel storage areas.						
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Caustic, acid containments	Abrasive Blast per ASTM D4259	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Semstone 145AFC <i>Novolac aggregate filled</i>	60 (1.55mm)		
Battery Room, Lab Floor	Abrasive Blast per ASTM D4259	Carboguard 1340 <i>Epoxy Sealer</i>	3-4 (75-100)	Semstone 140 <i>Epoxy</i>	30-40 (750-1000)		

Concrete Floors	Applications						
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Moderate to Heavy Duty	Abrasive Blast per ASTM D4259	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Sanitile 945 <i>Solvent-free epoxy</i>	10-12 (250-300)		
Heavy Duty	Abrasive Blast per ASTM D4259	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Sanitile 945 <i>Epoxy aggregate filled broadcast system</i>	60-125 (1.5-3.1mm)	Sanitile 945 <i>Solvent-free epoxy</i>	10-12 (250-300)
Color Quartz Heavy Duty	Abrasive Blast per ASTM D4259	Sanitile 925	160 ft ² /gal.	Sanitile 925 <i>Epoxy color quartz aggregate broadcast system</i>	30 (750)	Sanitile 925	10-12 (250-300)

Fire Rating	Surface Preparation (SSPC)	Prime Coat	Mils (Microns)	Fireproofing Product	Mils (Microns)	Topcoat	Mils (Microns)
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Fireproofing – Carbon Steel Cementitious and Intumescent	Applications Structural steel, decks, control rooms, high rise buildings, elevator shafts, roof assemblies, etc.						
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From 1 to 3 Hrs UL Rating	<i>See data sheet for specific fireproofing product</i>			Nullifire S607, or A/D Firefilm III Intumescent Fireproofing	As required by code	<i>See data sheet for specific fireproofing product</i>	
Up to 4 Hrs. UL Rating	<i>See data sheet for specific fireproofing product</i>			<i>Cementitious Light Density</i>	As required by code	<i>See data sheet for specific fireproofing product</i>	
Up to 4 Hrs. UL Rating	<i>See data sheet for specific fireproofing product</i>			Pyrocrete 240 HY <i>Cementitious High Density</i>	As required by code	<i>See data sheet for specific fireproofing product</i>	
Up to 4 Hrs. UL Rating	<i>See data sheet for specific fireproofing product</i>			Pyrocrete 241 <i>Cementitious High Density</i>	As required by code	<i>See data sheet for specific fireproofing product</i>	



Notes:

1. Carboguard 800 Series Epoxies are designed to meet your needs:
 - Carboguard 893: High solids epoxy primer or intermediate that provides excellent corrosion protection. Use in place of Carboguard 888 as local VOC regulations dictate.
 - Carboguard 890: High solids epoxy providing excellent corrosion protection as a primer, intermediate, or topcoat.
 - Carboguard 890 LT: Use in place of 890 when a **low temperature cure**, high solids epoxy providing excellent corrosion protection as a primer, intermediate, or topcoat is required.
2. Rustbond Penetrating Sealer may be used as a primer/sealer over existing, aged paints (with appropriate topcoats) in many maintenance applications as an economical approach to maintenance painting.
3. In maintenance painting, some coats may be eliminated depending on the condition of the existing paint system. Please consult your Carboline Sales Representative.
4. The application technique of stripe coating edges and weld lines will improve coating system performance.
5. Carboxane 2000 may be used in lieu of Carbothane 133 VOC or 134 VOC when an ultra-durable performance topcoat is desired.
6. The Heavy Duty Floor system that utilizes an aggregate broadcast into Sanitile 945 can be applied as a 60 mil or 125 mil system depending on the anticipated use of carts and forklift traffic. Please consult your Carboline Sales Representative.
7. Surface Cleaner 3 is a water based, biodegradable cleaner that is effective in cleaning and degreasing surfaces prior to painting.
8. Where surface preparation designations of SSPC SP 10, SP 6, SP 7, SP 2 OR 3, and SP 2 are used the ISO designations of Sa 2 ½, Sa 2, Sa 1, St 3, and St 2 (respectively) are also applicable.
9. For Fireproofing Systems, other primers than those listed may be acceptable. Consult your Carboline Sales Representative for specific advice.