

Carboline Architectural System Guide for Coating Applications

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 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Very Good	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)
Excellent	SP 10	Carbozinc 859 <i>Organic 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 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Good	SP 6	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Very Good	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Excellent	SP 10	Carbozinc 859 <i>Organic Zinc</i>	3-5 (75-125)	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 Series <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 Series <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 Series <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 Series <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 Series <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 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		

New Construction – Satin/Semi-Gloss Finish

Very Good	SP 6	Carbocrylic 3359DTM <i>Water borne Acrylic</i>	3-5 (75-125)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)		
Excellent	SP 6	Carboguard 888 or 893 <i>Epoxy</i>	4-6 (100-150)	Carbothane 133 Series <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 Series <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 Series <i>Polyurethane</i>	3-5 (75-125)		

Galvanized Steel – Weathered

Applications *Galvanized handrails, ducts and miscellaneous fabrications.*

Gloss Finish

Very Good	SP1, SP 2 or 3	Galoseal WB <i>Water borne acrylic</i>	0.75 (20)	Carbocrylic 3359DTM <i>Water borne acrylic</i>	3-4 (75-100)		
Very Good	SP1, SP 2 or 3	Galoseal WB <i>Waterborne acrylic</i>	0.75 (20)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		
Excellent	Brush blast	Rustbond Penetrating Sealer <i>Epoxy Sealer</i>	1-2 (25-50)	Carbothane 134 Series <i>Polyurethane</i>	2-2.5 (50-62)		

Satin/Semi-Gloss Finish

Very Good	SP1, SP 2 or 3	Galoseal WB <i>Water borne acrylic</i>	0.75 (20)	Carbocrylic 3359 <i>Water borne Acrylic</i>	2-3 (50-75)	<i>As required</i>	
Very Good	SP1, SP 2 or 3	Galoseal WB <i>Water borne acrylic</i>	0.75 (20)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		
Excellent	Brush blast	Rustbond Penetrating Sealer <i>Epoxy Sealer</i>	1-2 (25-50)	Carbothane 133 Series <i>Polyurethane</i>	3-5 (75-125)		

Drywall

Applications *Office areas, locker rooms, atriums, hallways, storage areas, etc.*

Light	Clean	Sanitile 120 <i>Sealer / bonding primer</i>	1-2 (25-50)	Sanitile 155 <i>Waterborne acrylic</i>	2-3 (50-75)		
Light to Moderate	Clean	Sanitile 120 <i>Sealer / bonding primer</i>	1-2 (25-50)	Sanitile 255 <i>WB acrylic-epoxy</i>	2-4 (50-100)		
Moderate	Clean	Sanitile 120 <i>Sealer / bonding primer</i>	1-2 (25-50)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)		

Exposure Level	Surface Preparation (SSPC)	1 st Coat	Mils (Microns)	2 nd Coat	Mils (Microns)	3 rd Coat	Mils (Microns)
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.				

Waterborne Acrylic Finish

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 155 <i>Waterborne acrylic</i>	2-3 (50-75)	<i>As required</i>	
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Waterborne Epoxy Finish

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 255 <i>WB acrylic-epoxy</i>	2-4 (50-100)	<i>As required</i>	
Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 500 <i>WB epoxy block filler</i>	5-20 (125-500)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)	<i>As required</i>	

Epoxy Finish

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 600 <i>Epoxy block filler</i>	5-20 (125-500)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)	<i>As required</i>	
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>	

Polyester Urethane Finish

Light to Moderate	Clean	Sanitile 100 <i>Acrylic block filler</i>	5-20 (125-500)	Sanitile 855 <i>Polyester-urethane</i>	2-3 (50-75)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 500 <i>WB epoxy block filler</i>	5-20 (125-500)	Sanitile 855 <i>Polyester-urethane</i>	2-3 (50-75)	<i>As required</i>	
Moderate to Heavy Duty	Clean	Sanitile 600 <i>Epoxy block filler</i>	5-20 (125-500)	Sanitile 855 <i>Polyester-urethane</i>	2-3 (50-75)	<i>As required</i>	

Secondary Containment for Chemical Exposure – Concrete

Applications Sumps, trenches, chemical containments, and floors around chemical and fuel spill and storage areas.

Caustic, acid containments	Blast	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Semstone 145AFC <i>Novolac aggregate filled</i>	60 (1.55mm)		
Battery Room, Lab Floor	Blast	Carboguard 1340 <i>Epoxy Sealer</i>	3-4 (75-100)	Semstone 140 <i>Epoxy</i>	30-40 (750-1000)		

Concrete Floors

Applications

Light Duty	Blast	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)	Sanitile 555 <i>Waterborne epoxy</i>	2-4 (50-100)
Moderate	Blast	Carboguard 1340 <i>Epoxy sealer</i>	3-4 (75-100)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)	Sanitile 655 <i>Epoxy</i>	4-6 (100-150)
Moderate to Heavy Duty	Blast	Semstone 110 <i>Epoxy sealer</i>	4-8 (100-200)	Sanitile 945 SL <i>Solvent-free epoxy</i>	10-12 (250-300)		
Heavy Duty	Blast	Semstone 110 <i>Epoxy sealer</i>	4-8 (100-200)	Sanitile 945 SL <i>Epoxy aggregate filled broadcast system</i>	60-125 (1.5-3.1mm)	Sanitile 945 SL <i>Solvent-free epoxy</i>	10-12 (250-300)

Fire Rating	Surface Preparation (SSPC)	Prime Coat	Mils (Microns)	Fireproofing Product	Mils (Microns)	Topcoat	Mils (Microns)
Fireproofing – Carbon Steel Cementitious and Intumescent			Applications <i>Structural steel, decks, control rooms, high rise buildings, elevator shafts, roof assemblies, etc.</i>				
From 1 to 3 Hrs UL Rating	<i>See data sheet for specific fireproofing product</i>			Nullifire S605, S606, S607, or AD 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>			Pyrolite 15 HY <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:

- Carboguard 800 Series Epoxies are designed to meet your needs:
 - Carboguard 888: Low temperature cure epoxy that provides excellent corrosion protection with an extended re-coat window.
 - 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.
- Carbothane 133 VOC for Carbothane 133 HB as local VOC regulations dictate.
- Carbothane 134 VOC for Carbothane 134 HG as local VOC regulations dictate.
- 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.
- Carbozinc 859 can provide superior performance as a maintenance primer. Please consult your Carboline Sales Representative to discuss your specific application.
- In maintenance painting, some coats may be eliminated depending on the condition of the existing paint system. Please consult your Carboline Sales Representative.
- The application technique of stripe coating edges and weld lines will improve coating system performance.
- Carboxane 2000 may be used in lieu of Carbothane 133 Series or 134 Series when an ultra-durable performance topcoat is desired.
- 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.
- Surface Cleaner 3 is a water based, biodegradable cleaner that is effective in cleaning and degreasing surfaces prior to painting.
- 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.
- For Fireproofing Systems, other primers than those listed may be acceptable. Consult your Carboline Sales Representative for specific advice.