

Grip-Gard BC Single Stage Binders

Technical Data Sheet

September 2013

Topcoats

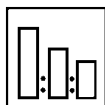
Description

Grip-Gard BC Single Stage Binders are specially blended acrylic resins which convert Grip-Gard BC toners into a fast drying, durable single stage urethane topcoat. Available in Gloss, Semi-Gloss or Satin Gloss level to meet Sign application needs. Single Stage systems do not require clearcoats with the exception of warranty requirements.



Chose the required color in Mixit
When mixing the chosen Grip-Gard BC color, replace the entire volume GGBC 10 Binder with Grip-Gard BC #80, #83 or #85 Single Stage Binders.

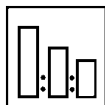
Low Gloss Finish (10 – 29 GU @60° angle)



- 100 Grip-Gard BC Basecoat with **85** Single Stage Satin Binder
- 50 Grip-Gard BC Clear Hardener
- 10% Add 10% Grip-Gard BC Reducer Fast, Med, Slow or X-Slow

NOTE: Clear Hardener Slow is not recommended for use with #85 Binder

Satin Gloss Finish (20 – 49 GU @60° angle)



- 100 Grip-Gard BC Basecoat with **83** Single Stage Satin Binder
- 50 Grip-Gard BC Clear Hardener or Clear Hardener Slow
- 10% Add 10% Grip-Gard BC Reducer Fast, Med, Slow or X-Slow

NOTE: if a lower gloss level is required, add Grip-Gard Plus B02 Reducer in place of GGBC Reducer

High Gloss Finish (>85 GU @ 60° angle)



- 100 Grip-Gard BC Basecoat with **80** Single Stage Satin Binder
- 50 Grip-Gard BC Clear Hardener or Clear Hardener Slow
- 10% Add 10% Grip-Gard BC Reducer Fast, Med, Slow or X-Slow

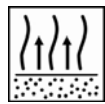
NOTE: Use the AkzoNobel Measuring Stick #101 or #103



Spray gun set-up:	Application pressure:
Gravity: 1.3 – 1.5 mm	30–40 psi (2-3 bar) at the air inlet
Siphon: 1.6 – 1.8 mm	HVLP max 10 psi (0.7 bar) at the air cap



Application Solid Color	Apply 2 even wet coats or until covered.
Application Metallic Color	Apply 2 even wet coats followed by an orientation coat.



Flash between coats
5 - 10 minutes at 70°F (20°C)



9 hours at 70°F (20°C) With GGBC Clear Hardener
12 hours at 70°F (20°C) With GGBC Clear Hardener Slow
3 hours at 70°F (20°C) with Accelerator
30 minutes at 140°F (60°C)



Use suitable respiratory protection
AkzoNobel Sign Refinishes recommends the use of a fresh air supply respirator

Single Stage Binders

Suitable substrates

Grip-Gard BC Single Stage can be applied directly over:

- Grip-Gard White Washprimer Light Enhancing (non sanding)
- Grip-Gard Epoxy Sealer Gray or White
- Grip-Gard Brite-White HF Primer
- Grip-Gard Washprimer 1K CF
- Grip-Gard Sealer White and Gray
- Grip-Gard HB Surfacer (after sanding)
- Most existing finishes; degreased and sanded with #P500 to #P600 grit paper dry or #P600 to #P800 grit wet but not over thermoplastic acrylic lacquers. In that case, the entire surface must be sealed with a Surfacer or Sealer.
- Grip-Gard BC Single Stage Satin can be directly applied on top of the following primed surfaces: Aluminum, steel, galvanized steel, rigid plastics and expanded urethane foam when primed with the appropriate Grip-Gard primer system. Consult relevant primer Technical Data Sheet for substrate recommendations.

Products and additives

PRODUCTS:	Grip-Gard BC Basecoat Toners	Assortment
	Grip-Gard BC Single Stage Gloss Binder #80	Item # 397268
	Grip-Gard BC Single Stage Semi-Gloss Binder #83	Item # 509753
	Grip-Gard BC Single Stage Satin Binder #85	Item # 483517
HARDENER:	Grip-Gard BC Clear Hardener	Item # 391268
	Grip-Gard BC Clear Hardener Slow	Item # 481146
REDUCERS:	Grip-Gard BC Fast Reducer: Temperature: 60°F–75°F (16°C–24°C)	Item # 391264
	Grip-Gard BC Medium Reducer: Temperature: 70°F–85°F (20°C–30°C)	Item # 391265
	Grip-Gard BC Slow Reducer: Temperature: 80°F–95°F (27°C–35°C)	Item # 391266
	Grip-Gard BC Extra Slow Reducer: Temperature range: above 95°F (35°C)	Item # 391267
CLEARCOATS:	Grip-Gard BC Clear	Item # 391270
	Grip-Gard BC Satin Clear	Item # 481084
	Grip-Gard BC Low Gloss Clear	Item # 391271

Basic raw materials

- Grip-Gard BC 80, 83 and 85 Single Stage Binder: acrylic resins
- Grip-Gard BC Reducers: special solvent blends.
- Grip-Gard BC Clear Hardeners: polyisocyanate resin.
- Grip-Gard BC Clearcoats: acrylic resin

Surface preparation

All products that are to be sanded: you may have to initial sand, but final sanding with #P500 to #P600 grit paper dry or #P600 to #P800 grit wet is recommended.

Wet-on-wet products: please follow recommendation for product in use by consulting the relevant Technical Data Sheet

Mixing

Mixing Machine



- Stir Grip-Gard BC Basecoat MM colors on mixing machine every 4 hours for 15 minutes
- Choose the color required in Mixit.
- When mixing the chosen Grip-Gard BC color, replace the entire volume of GGBC 10 Binder with Grip-Gard BC 80, 83 or 85 Single Stage Binder.

Single Stage Binders

Optional: Mix any toner from the mixing machine 1 to 1 by volume with GGBC 80, 83 or 85 Binder. For HS White use toner #120. For Black use toner #140. Stir Grip-Gard BC Basecoat MM colors on mixing machine every 4 hours for 15 minutes

MIXING RATIOS FOR GLOSS LEVEL DESIRED

Low Gloss Finish (10 – 29 GU @60° angle)

- 100 parts Grip-Gard BC Basecoat with 83 Single Stage Satin Binder
- 50 parts Grip-Gard BC Clear Hardener
- 15-30 parts Grip-Gard BC Reducer Fast, Med, Slow or X-Slow

NOTE: Clear Hardener Slow is not recommended for use with #85 Binder

Satin Gloss Finish (20 – 49 GU @60° angle)

- 100 parts Grip-Gard BC Basecoat with 83 Single Stage Satin Binder
- 50 parts Grip-Gard BC Clear Hardener or Clear Hardener Slow
- 15-30 parts Grip-Gard BC Reducer Fast, Med, Slow or X-Slow

NOTE: if a lower gloss level is required, add Grip-Gard Plus B02 Reducer in place of GGBC Reducer

High Gloss Finish (>85 GU @ 60° angle)

- 100 parts Grip-Gard BC Basecoat with 83 Single Stage Satin Binder
- 50 parts Grip-Gard BC Clear Hardener or Clear Hardener Slow
- 15-30 parts Grip-Gard BC Reducer Fast, Med, Slow or X-Slow

NOTE: Use the AkzoNobel Measuring Stick #101 or #103

Color mixing by hand:

Own formulated colors: When developing your own color, it is essential that you add Grip-Gard BC Single Stage Binder 80, 83 or 85 into the paint mixture.

To do this, mix 2 parts mixed color to 1 part Single Stage Binder 80, 83 or 85 by weight,

or use a measuring Stick # 104 to mix 1 parts mixed color by volume to 1 part GGBC Binder 80, 83 or 85 by volume. Stir thoroughly.

Then harden and reduce as described in the mix ratio section. Failure to include the binder into the paint mixture will cause poor product performance.

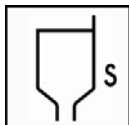
Metallic Mixing Note:

When using Grip-Gard BC Single Stage Binders in metallic or pearl colors, the color match may be slightly varied depending on the color chosen due to a change in metallic orientation. Please test color matches on small panels before final application

Addition of Grip-Gard BC Clear Accelerator

Grip-Gard BC Clear Accelerator can be added to Grip-Gard BC Single Stage at a level of ½ - 1 ounce per ready-to-spray quart, or 2 - 4 ounces per ready-to-spray gallon

Viscosity



The proper spraying viscosity is achieved by using the recommended mixing ratio. Grip-Gard BC Single Stage color: 16 – 17 sec. DIN Cup #4, 18 – 22 Zahn cup #2 at 70°F (20°C).

Single Stage Binders

Spray gun set-up / application pressure

Spray gun	Fluid tip set-up	Application pressure	Fluid Spray Rate
High Transfer Gravity	1.3 – 1.5 mm	35 psi	
High Transfer Pressure Feed	1.0 – 1.2 mm	35 psi	10 – 15 oz/min.
HVLP Pressure Feed	0.8 – 1.0 mm	Max 10 psi (air cap)	10 – 15 oz/min.
HVLP Siphon	1.8 – 2.2 mm	Max 10 psi (air cap)	
HVLP Gravity	1.3 – 1.5 mm	Max 10 psi (air cap)	

Pot-life

Grip-Gard BC Single Stage:	1.5 hours with BC Clear Hardener
Grip-Gard BC Single Stage:	4 hours with BC Clear Hardener Slow
Grip-Gard BC Single Stage with Accelerator:	1 hour

Application process

SOLID COLORS:

Spray 2 single wet coats; allow approximately 5 – 10 minutes flash-off between coats.

METALLIC COLORS:

Spray 2 single coats at approximately 6 – 8 inches from the panel allowing 5–10 minutes flash off between each coat. Even out the metallic pattern with a metallic orientation coat after the final coat has flashed off for 1 minute. This is achieved by extending the distance between the gun and panel, and applying a lighter coat. This can be best achieved by using approximately ½ trigger and holding the gun at a 45° angle to the surface being painted. Do not make this coat too wet.

TWO-TONE APPLICATION

Grip-Gard BC Single Stage colors can be taped off with fine line masking tape after 9 hours at 70°F (20°C) and a second color of Grip-Gard BC Single Stage can then be applied.

Film thickness

By recommended application;

Grip-Gard BC Single Stage, Solid, Metallic and Pearl: 1.0–1.2 mils per single coat.

Recoat time



Before applying clearcoat, allow Grip-Gard BC Single Stage to dry for:

15 to 20 minutes at 70°F (20°C) for Solid Colors
2 – 3 hours for Metallic Colors



Grip-Gard BC Single Stage can be recoated with itself or with Grip-Gard Clears up to 48 hours without sanding. After 48 hours, sanding will be necessary.

NOTE:

Vinyl graphics can be applied after 48 hours at 70°F (20°C). Reflective vinyl graphics require additional time (contact manufacturer for recommendation) before applying to avoid bubbling.

NOTE:

Striping or lettering with Grip-Gard BC Single Stage must be applied within 48 hours to obtain good adhesion. After 48 hours, scuff with a gray scuffing pad.

Single Stage Binders

Curing time



Dust Free at 70° F:
 30 minutes without Accelerator
 20 minutes with Accelerator



Dry to Exposure at 70° F:
 9 hours without Accelerator with GGBC Clear Hardener
 12 hours without Accelerator and GGBC Clear Hardener Slow
 3 hours with Accelerator



Dry to Handle at 140° F:
 30 minutes without Accelerator
 20 minutes with Accelerator

Material usage

Approximate square foot coverage per gallon at 1 dry mil:

Transfer Efficiency	Unmixed Paint	Ready to Spray
100% (Theoretical)	915	575
65% (HVLP)	595	375
35% (Conventional)	320	200

Cleaning of equipment

Clean equipment with Cleaning Solvent 790, Cleaning Solvent LV or lacquer thinner.

VOC

Grip-Gard BC Single Stage: 100:50:10 (Reducer) 4.73 lb/gal. 567 g/liter

Product storage

Store products unopened, and used products with closed lids preferably between 70°F-95°F (10°C-35°C)
 Avoid too much temperature fluctuation, optimal storage temperature approximately 70°F (20°C)

SHELF LIFE:
 Grip-Gard BC 85 Single Stage Satin Binder: Two years stored at room temp.
 Grip-Gard BC 83 Single Stage Satin Binder: Two years stored at room temp.
 Grip-Gard BC 80 Single Stage Binder: Two years stored at room temperature
 Grip-Gard BC Basecoat Toners: Four years if stored unmixed at room temperature.
 Grip-Gard BC Clear Hardeners: One year if stored unopened at room temperature.
 Grip-Gard BC Reducers: Four years if stored unopened at room temperature..

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product..Coatings brand names mentioned in this data sheet are trademarks of or are licensed to Akzo Nobel.

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