



## ChromeFX Spray Chrome Paint System

Thank you for your inquiry into the ChromeFX Spray "chrome" System, the environmentally safe, decorative alternative to traditional plating. This revolutionary system was developed and perfected in Europe over the last 10 years and today it is being used in the Automotive / Motorcycle after-market, Decorative and numerous other industries.

With ChromeFX, you can "chrome" plastics or large objects that were never possible with traditional chroming. Plus, ChromeFX can mimic the look of numerous metals and finishes - from chrome to brass and smooth to brushed. All spray applied without dangerous chemicals or toxic metals.

Now, Alsa Corporation is introducing the perfected ChromeFX System in the US with complete Service and Support. Alsa's experienced staff, technical center and affiliates can help you with all aspects of using this exciting technology. Alsa Corporation can provide:

- ChromeFX coatings, equipment and training so you can use your existing painting facilities to "chrome" products at your facilities.
- ChromeFX application on your product for prototyping.
- Complete outsourcing of ChromeFX coated parts in the NADTA region or China.



Let us help you incorporate our ChromeFX System into your business. If you would like to obtain free sprayed out sample of the finished product please feel free to contact us and we will be glad to send them immediately.

Enclosed are Technical Data Sheets and Price Lists for the ChromeFX system.

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## ChromeFX Technical Data Sheet

### Summary:

- High durability system that gives a mirror like surface to regular and expanded plastics, metal, wood, glass or ceramics.
- Duplicates the look of chrome, brass, silver, or other metals
- Available in any color
- Effects include antiquing and brushed metal (matte)
- Successful in production line processes.
- Environmentally friendly – no toxic metals
- Can be use on semi-rigid substrates where chrome fails.
- Can be used on any size object from cell phones to 20 ft. Styrofoam stage props



### Description:

The ChromeFX is a highly durable spray applied three-layer system for plastic, metal, or wood. Use the ChromeFX System where conventional plating technologies are unsuitable due to cost, size, design, substrate or environmental issues. This system is currently used in job shop and production line applications.

HOW IT WORKS: Three layers of proprietary paint products are used. These are:

1. **Basecoat** – a 3 component coating that creates a smooth surface that is reactive to the intermediate coat. Works as a primer on many surfaces. Not needed for glass and ceramic.
2. **ChromeFX intermediate coat** – a multi step process that creates a continuous reflective film. The specific steps are: 1. Activator, 2. Distilled or De-ionized Water Wash, 3. ChromeFX coat, 4. Distilled or De-ionized Water Wash, 5. Compressed Air Blow Off.
3. **Topcoat** – Protective 2 component automotive grade tintable clear topcoat. Gloss can be varied from chrome-like high gloss to brushed metal matte.

### Properties of Coated Surface

Technical Property	Performance
Gloss @ 60° Angle:	5° to 80°
Impact Resistance:	Excellent
Adhesion:	Excellent
Humidity Resistance:	Excellent
Salt Spray Resistance:	Excellent
Chemical Resistance:	Very good
Abrasion Resistance:	Excellent
Temperature and Humidity Cycling:	Pass
Mar Resistance:	Very good
Distinctness of image (doi):	Up to mirror like



TATA MOTORS (pictured)

### Application Data Summary (See individual Technical Data Sheets for detailed information)

Layer	Application	Dry Film Thickness	Air dry at 25°C (77°F)	Force Dry (Plastics) (Metal, ceramic and glass can use higher temperatures)	Pot life
Basecoat	Standard Spray	0.8 to 1.0 mils	48 – 72 hours	8-10 hours at 50°C (130°F)	4 hours
ChromeFX	Special Kit/Process	0.1 mil	1 hour	10 minutes at 50°C (130°F)	N/A
Topcoat	Standard Spray	0.8 to 1.0 mils	12 hours	1 hour at 50°C (130°F)	4 hours

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## ChromeFX Basecoat Technical Data Sheets

### Description:

The ChromeFX **Basecoat (B712)** is a solvent based, 3-component spray applied coating that forms a smooth reactive base for the ChromeFX Intermediate "chrome" layer. It can be used without additional primer on most non-porous surfaces.

### Product Data

**Pigment / Binder:** Acrylic resin  
**Solvents:** Aromatic hydrocarbons  
**Fire Hazard:** Flammable  
**Flash point:** 27° C or 80°F  
**Coverage:** 400 sq. ft. / gallon at 1 mil  
**Substrates:** Plastic or metal  
**Color:** Clear  
**Shelf Life:** 1 Year Unopened  
**Pot Life:** 4 Hours at ambient conditions.

### Application

**Cleaning:** All parts must be chemically or mechanically cleaned, film free, by a recognized cleaning specification.

**Pre-treatment:**

**Plastics:** Use adhesion promoter recommended by substrate manufacturer to improve adhesion.

**Porous Surfaces:** Apply a primer/sealer.

**Hardener ChromeFX Basecoat Hardener (BH712)**

**Mixing ratio:** (6:1:1) Basecoat: Hardener: Thinner

**Application Methods:** Conventional or HVLP spray

**Recommended dry film thickness:** 1.0 mil

**DO NOT TOUCH PART AFTER PRODUCT APPLICATION. Hand oils cause defects in intermediate coat.**

### Drying

**Air Dry:** 48 hours

**Forced Drying:** 8-10 hours at 50°C (130°F). Metals and high temperature plastics can use higher temperatures.

### Storage

Store at ambient conditions and away from open flame.

### Safety Precautions

Wear personal protective gear to eliminate chemical exposure risks to eye, skin and respiratory system.

Please refer to the Material Safety Data Sheet.



## ChromeFX Intermediate Coat Technical Data Sheet

### Description:

The ChromeFX **Intermediate coat** is a series of water borne steps that result in a mirror like coating on properly prepared surfaces. It can be applied directly to ceramic and glass. The ChromeFX Basecoat must be used on all other surfaces. The intermediate coat must be protected by the ChromeFX Topcoat.

### Product Data:

Product	Activator Super Concentrate	AB Super Concentrate	B1 Super Concentrate	B2 Super Concentrate	Distilled or De-ionized Water
<b>Solvents:</b>	Water	Water	Water	Water	Water
<b>Fire Hazard:</b>	None	None	None	None	None
<b>Color:</b>	Clear	Clear	Clear	Clear	Clear
<b>Shelf Life (unmixed):</b>	1 Year	1 Year	1 Year	1 Year	NA
<b>Pot Life (mixed):</b>	1 Day	1 Day	NA	1 Day	NA

### Mixing:

#### Activator

1. Wear personal protective gear to eliminate chemical exposure risks to eyes, skin and respiratory system.
2. Do mixing in ventilated area or wear respirator.
3. Mix only what you need for one day. Mixed product deteriorates after one day. Refrigeration will not slow deterioration.
4. Measure out amount of distilled or de-ionized water needed for day's activities. Water should be between 65° - 75° F. Ideal temperature is between 72° - 75° F.
5. Using a funnel, carefully add (4-6 ounces or 120-180 ml.) of ChromeFX Activator for every gallon (of distilled or de-ionized water).
6. Replace cap tightly on ChromeFX Activator container.
7. Use a funnel to carefully add mixture to container marked "Activator" in the ChromeFX System.
8. Apply using ChromeFX System according to directions. **Wear eye, skin and respiratory protection during application.**



#### Parts (B1) & (B2)

1. Wear personal protective gear to eliminate chemical exposure risks to eyes, skin and respiratory system. Do mixing in ventilated area or wear respirator.
2. Do mixing in ventilated area or wear respirator.
3. Mix only what you need for one day. Mixed product deteriorates after one day. Refrigeration will slow deterioration.
4. Measure out amount of distilled or de-ionized water needed for day's activities. Water should be between 65° - 75° F. Ideal temperature is between 72° - 75° F.
5. Using a funnel, carefully add 30 ml. of (B1) chemical for every gallon of distilled or de-ionized water.
6. Replace cap tightly on (B1) container.
7. Using a funnel, add 30 ml of (B2) chemical for every gallon of water as (B1). Order of adding (B1) and (B2) is not important. **Do not add concentrates to each other as violent reaction will result.**
8. Use a funnel to carefully add to container marked "B" in the ChromeFX System.
9. Apply using ChromeFX System according to directions. **Wear eye, skin and respiratory protection during application.**

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## ChromeFX Intermediate Coat Technical Data Sheet

### Mixing: (continued)

#### Part (AB)

1. Wear personal protective gear to eliminate chemical exposure risks to eyes, skin and respiratory system.
2. Do mixing in ventilated area or wear respirator.
3. Mix only what you need for one day. Mixed product deteriorates after one day. Refrigeration will slow deterioration.
4. Measure out amount of distilled or de-ionized water needed for day's activities. Water should be between 65° - 75° F. Ideal temperature is between 72° - 75° F.
5. Using a funnel, carefully add 60 ml. of (AB) for every gallon of distilled or de-ionized water.
6. Replace cap tightly on (AB) container.
7. Use a funnel to carefully add to container marked "AB" in the ChromeFX System.
8. Apply using ChromeFX System according to directions. **Wear eye, skin and respiratory protection during application.**

### Filling ChromeFX System:

Wear personal protective gear to eliminate chemical exposure risks to eye and skin.

Do filling in ventilated area or wear respirator.

Use only Distilled or De-ionized Water in water container and for final rinsing.

1. Use a funnel to carefully add products to appropriate container (Activator, B, AB, Water) in the ChromeFX System. Fill no higher than shoulder of container.
2. Clean funnel with distilled or de-ionized water and dry between steps.

### ChromeFX System Start-up:

1. Setup System according to instructions and make sure all connections are air and liquid tight.
2. Connect air supply and turn on pressure.
3. Set gauges to 40 psi. (Note you may wish to increase the air pressure to the blow gun).

### Spray Gun Adjustment:

Wear respirator and personal protective gear to eliminate chemical exposure risks.

Use a catch basin to collect wastewater runoff and treat according to directions.

1. Single Component Guns:
  - a. Clean and degrease guns before 1<sup>st</sup> use.
  - b. Adjust to attain an even spray fan.
2. Dual Component ("A" and "AB") Gun:
  - a. Clean and degrease gun before 1<sup>st</sup> use
  - b. Fill with distilled or de-ionized water for adjustment.
  - c. Walther Pilot Gun:
    - i. Use a straight edge when adjusting liquid supply to make sure that the two liquid supply knobs are even so that equal amounts of "A" and "AB" are applied.
    - ii. Adjust to a fine spray that will evenly wet surface without excess runoff by adjusting 2 liquid supply knobs and air supply knob.
    - iii. Test with distilled or de-ionized water to make sure that equal amounts of "A" and "AB" are being used. Uneven application will cause discoloration.
    - iv. Adjust and re-measure until flow is equal.



## ChromeFX Intermediate Coat Technical Data Sheet

### Application:

**Wear respirator and personal protective gear to eliminate chemical exposure risks.**

Use a catch basin to collect wastewater runoff and treat according to directions.

Items to be sprayed must have ChromeFX Basecoat or be glass or ceramic.

1. Clean glass or ceramic to remove dirt and hand oils. Do not clean or touch Basecoated objects with bare hands.
2. Apply activator evenly to surface of object. If desired, Activator can be applied by dipping.
3. Rinse with distilled or de-ionized water.
4. Working from bottom to top, apply the chrome ("A" and "AB") to object until a uniform ChromeFX coating appears.
5. Rinse thoroughly with distilled or de-ionized water.
6. Blow off water with compressed air.
7. Object is ready to top coat as soon as dry. Object can be placed in oven at 50°C (130°F) to aid drying.

**DO NOT TOUCH PART AFTER PRODUCT APPLICATION. Hand oils cause defects in topcoat coat.**

### Storage:

Store at ambient conditions.

### Safety Precautions:

Wear personal protective gear to eliminate chemical exposure risks to eye, skin and respiratory system.

Please refer to the Material Safety Data Sheet for other safety precautions.



## ChromeFX Topcoat Technical Data Sheets

### Description:

The ChromeFX **Topcoat (T520)** is a solvent based, 2-component spray applied coating that forms a clear protective finish. It is highly durable and resistant to most chemicals.

### Product Data:

**Pigment / Binder:** Acrylic resin  
**Solvents:** Aromatic hydrocarbons  
**Fire Hazard:** Flammable  
**Flash point:** 25°C or 77°F  
**Coverage:** 400 sq. Ft/ gallon @ 1 mil  
**Substrates:** ChromeFX Intermediate Coat  
**Color:** Clear  
**Shelf Life:** 1 Year Unopened  
**Pot Life:** 4 Hours at ambient conditions.

### Tinting:

Product can be tinted to almost any color using ChromeFX transparent pigments. Pigments are available in: Apple Red, Orange, Lemon Yellow, True Gold, Grass Green, Forest Green, Turquoise, Cobalt Blue, Purple, Brown and Black.

### Gloss:

Gloss as supplied is 80 on a 60° degree gloss meter. Product gloss can be adjusted with a ChromeFX Flattening Agent.

### Application:

**Cleaning:** All parts should be dry. DO NOT TOUCH PARTS WITH BARE HANDS.  
**Pre-treatment:** None  
**Hardener:** ChromeFX Topcoat Hardener (TH520)  
**Mixing ratio:** (4:1) Topcoat: Hardener  
**Application Methods:** Conventional or HVLP spray  
**Recommended dry film thickness:** 1.0 mil

### Drying:

**Air Dry:** 12 hours at room temperature.  
**Forced Drying:** 1 hour at 50°C (130°F). Metals and high temperature plastics can use higher temperatures.

### Storage:

Store at ambient conditions and away from open flame.

### Safety Precautions:

Wear personal protective gear to eliminate chemical exposure risks to eye, skin and respiratory system.  
Please refer to the Material Safety Data Sheet.



## ChromeFX System and Materials Pricing

### ChromeFX Application Equipment

**\$7,900**  
includes Package 1 (Free)

#### Industrial ChromeFX Spray System

##### INCLUDES:

- Cart containing all equipment necessary to do chroming coat. (Each pressure vessel can hold approximately 5 gallons of materials making the ChromeFX System suitable for continues non-stop chroming production runs).
- Seven controls designed to minimize waste and the margin for error.
- FREE 500 feet<sup>2</sup> (\$1,320 value) of materials with every ChromeFX System purchase.



### ChromeFX Coating Packages

Each ChromeFX Coatings Package consists of all products needed to coat specified square footage with a Basecoat, Intermediate "chrome" coat and protective Topcoat.

Includes enough materials to "chrome":		Total Cost	Cost per foot <sup>2</sup>
Package 1	500 feet <sup>2</sup>	<b>\$1,320</b>	\$2.64
Package 2	1,500 feet <sup>2</sup>	<b>\$3,300</b>	\$2.20
Package 3	3,000 feet <sup>2</sup>	<b>\$5,280</b>	\$1.76
Package 4	6,000 feet <sup>2</sup>	<b>\$9,350</b>	\$1.55

\*\*\*Quotes on larger quantities are available on request.

Specific contents of each kit are given below:

#### CHROME FX COATING PACKAGE CONTENTS

COMPONENTS	1	2	3	4
<i>Coverage:</i>	500 sq. ft.	1,500 sq. ft.	3,000 sq. ft.	6,000 sq. ft.
Basecoat (B712)	1 Gallon	3 Gallon	6 Gallon	12 Gallon
Basecoat Thinner (BT712)	1½ Pint	4½ Pint	9 Pint	9 Quarts
Basecoat Hardener (BH712)	1½ Pint	4½ Pint	9 Pint	9 Quarts
Tint Topcoat (TT520)	2 Quarts	1½ Gallon	3 Gallon	6 Gallon
Topcoat (T520)	2 Quarts	1½ Gallon	3 Gallon	6 Gallon
Topcoat Hardener (TH520)	1 Quarts	3 Quarts	6 Quarts	12 Quarts
<b>INTERMEDIATE "CHROMING" COAT COCENTRATES*</b>				
Activator Concentrate	2 Liters	6 Liters	12 Liters	24 Liters
Component AB Concentrate	1 Liters	3 Liters	6 Liters	12 Liters
Component B1 Concentrate	½ Liters	1½ Liters	3 Liters	6 Liters
Component B2 Concentrate	½ Liters	1½ Liters	3 Liters	6 Liters

\* All are concentrates to extend shelf life and lower shipping costs.

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## ChromeFX System and Materials Pricing

- **Package 1:** Includes your choice of three (4 oz) bottles of our most popular Candy Concentrates color tints
- **Package 2:** Includes one 11 color (4 oz) Candy Concentrate color tint set (CST11)
- **Package 3:** Includes two 11 color (4 oz) Candy Concentrate color tint sets (CST11)
- **Package 4:** Includes four 11 color (4 oz) Candy Concentrate color tint sets (CST11)



### **SUBJECT: Performance Testing**

Salt Spray per ASTM B-117: Standard Practice for Operating Salt Spray (Fog) Apparatus

Over 1050 hours with no evidence of corrosion.

Results: Pass

(Wet) tape adhesion per FED-STD-141C, Method 6301.2

Results: Pass

Specular Gloss/60 @ 395

Impact adhesion 140 IN. /LBS

Results: no failure past point of impact, passed test.