



# Hybrid XT – Technical Data Sheet

## Company Information

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\*In the case of an emergency, please call 911.

## Product Information

The V-8 Hybrid XT Decorative Floor Coating is a clear, glossy, 100% solids floor coating that combines the qualities of both Polyurea and Polyaspartic resins for a superior, durable finish. It is self-leveling, UV resistant, has zero VOCs, and virtually no smell. When fully cured, the Hybrid XT Decorative Floor Coating will remain hard, yet flexible. It may be applied to any properly prepared solid substrate surfaces. It has exceptional chemical resistance, bonding, and wetting properties. The Hybrid XT Decorative Floor Coating has an installation temperature range from 0-100°F.

There are six systems that can be achieved utilizing the Hybrid XT Decorative Floor Coating: Hybrid XT Full Chip Vinyl System, Hybrid XT Full Chip Mica System, Hybrid XT Platinum Color Pigment System, Hybrid XT Quartz Double Broadcast System, Hybrid XT Solid Color System, and the Hybrid XT Clear System.

## Areas of Application

Airports	Elementary Schools	Industrial facilities	Police Stations
Bathrooms	Entryways	Labs	Restaurants
Bars	Fire Stations	Lunchrooms	Service Areas
Basements	Garage Floors	Manufacturing	Showers
Cafeterias	Grocery Stores	Mudrooms	Showrooms
Commercial areas	Hallways	Night Clubs	Universities
Countertops	Hospitals	Outdoor Patios	Work Trailers

## Advantages

- Same product for all coats
- 1:1 mix ratio
- No VOCs
- UV resistant
- Self leveling
- Can be installed down to 0°F
- Industrial strength
- Comes clear
- Has a smooth, shiny, and reflective surface
- Extremely durable to abrasion and many chemicals
- Texture can be added
- Meets requirements for USDA and FDA use for incidental food contact



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## Usage

Hybrid XT Decorative Floor Coating is a durable flooring product that delivers superior chemical resistance. The product has a wide range of applications for vertical and horizontal solid substrate. Avoid usage of 10 mils DFT per coat on vertical surfaces to prevent product runs.

## Pigment Additive

Available in 14 different colors: White, Light Gray, Oxford Gray, Medium Gray, Steel Gray, Tan, Raffia, Colonial Blue, Highgate Green, Safety Yellow, Safety Blue, Tile Red, Black, or Clear. Hybrid XT Decorative Floor Coating may be applied as a clear topcoat to existing substrate that is prepared properly. **\*Please see Surface Preparation Guidelines for more detail.**

## Surface Preparation Guidelines

Surface preparation is extremely important for all Hybrid XT system applications. It is highly recommended to prepare the substrate using a diamond grinder to mechanically grind the surface and remove all existing coatings, grease, oil, or other surface contaminants and debris. Vacuum surface to leave the surface free from loose debris. You may use a degreaser on oil or grease saturated spots before grinding if necessary. The floor must be dry prior to coating.

## Concrete Repair (if necessary)

In areas that need repair, use Fast Patch, an epoxy based patching material that is used for filling holes, voids, or air pockets in concrete, and as an adhesive for bonding V Cove to concrete walls. Mix FastPatch in relatively small batches 4 parts A to 1 part B. To extend the mass of the product, add sand or pea stone to the batch and mix with a drill and a mixing paddle. Trowel Fast Patch into holes until the surface is smooth. Grind Fast Patch before coating.

## New concrete surfaces

There is a 30-day cure period requirement for concrete surfaces and mortar joints at 75°F (24°C) with 50% or less humidity.

Surface must be prepared according to ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. The surface should be scored by a diamond grinder until coarse and even.

## Installation Requirements

Only contractors who have been certified through Xtreme Engineered Floor Systems can purchase and install our systems.

## Mixing Instructions

Pour equal parts of PART A and PART B into a separate container, mixing with squirrel cage-type drill mixer attachment; NOTE— product sets up quickly, so it is recommended to mix product in batches that are manageable. If adding pigment into the mixture, adhere to the following mixture: **1 gallon Part A + 1 gallon Part B + 1 quart of pigment.** (It can be mixed in smaller quantities).

## Installation Overview

For a smooth, desirable finish of Hybrid XT, utilize both a squeegee and a lint-free paint roller. Always push the squeegee forward as an installer follows with the roller. This process is highly recommended



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for a superior finish. Paint brushes may be utilized for touching up line stripping or small patches only. It is not recommended for use in an area of high visibility.

## Product applications specific to each V-8 Hybrid XT System

(Hybrid XT Full Chip Vinyl System, Hybrid XT Full Chip Mica System, Hybrid XT Platinum Color Pigment System, Hybrid XT Quartz Double Broadcast System, Hybrid XT Solid Color System, and the Hybrid XT Clear System.) Dry times below based on temps of 60-75 degrees F, and may change with temperature variance.

### Hybrid XT Full Chip Vinyl System

- 1) Apply colored primer coat at a coverage rate of 350-400 sq. ft. per gallon.
- 2) After 20 minutes or when tacky, apply colored base coat at 350 sq. ft. per gallon and broadcast color chips onto wet base coat to rejection.
- 3) After 30 minutes and when chips on surface are not moveable, remove excess chips from surface with tile scraper and save excess chips for future use. Vacuum floor.
- 4) Apply grout coat of CLEAR, NON-PIGMENTED product over floor at a rate of 225 sq. ft. per gallon. TO ENSURE EVEN COVERAGE, additional chips can be applied with grout coat to fill light spots.
- 5) After 30 minutes, when dry to touch, apply final clear top coat at coverage rate of 500-550 sq. ft. per gallon.

### Hybrid XT Full Chip Mica System

1. Apply colored primer coat at a coverage rate of 350-400 sq. ft. per gallon.
2. After 20 minutes, or when tacky, apply colored base coat at 350 sq. ft. per gallon, and broadcast colored mica chips onto wet base coat.
3. After 20 minutes and mica chips are set within curing base coat, remove excess chips from surface with tile scraper saving excess chips for future use. Vacuum clean coated floor area.
4. Apply clear grout coat over floor area at coverage rate of 225 sq. ft. per gallon. To ensure even coverage, broadcast additional colored mica chips within grout coat to fill in light areas as necessary.
5. Allow grout coat to cure properly.
  - A. If macro sized mica chips were used and/or sanding is necessary:
    1. Wait at least 1 hour or until dry before sanding
    2. Lightly sand off projecting edges of chips flush with grout coat surface. Vacuum clean coated floor area.
  - B. If sanding is not necessary, move to step 6.
6. Apply a first top coat at coverage rate of 500-550 sq. ft. per gallon.
7. After 30 minutes, when dry to touch, apply a second top coat at coverage rate of 500 - 550 sq. ft. per gallon.

### Hybrid XT Platinum Color Pigment System

1. Mix Hybrid XT and black pigment at a ratio of ½ quart of black to 2 gallons Hybrid XT. Squeegee and back roll mixed Hybrid XT and black pigment. Apply mixture at 8 mils thick (200 square feet/gallon)



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2. After 20 minutes or when tacky to touch, start mixing the Platinum Color Pigment Coat. Use a drill mixer at a medium-fast speed for 30 seconds or until the Platinum Color Pigment powder has been evenly dispersed.
3. Be sure to start at the end of the room and back your way out. *Spiked shoes can leave marks in the coating so be careful with this.* Squeegee with a notched squeegee and have *two crew members* immediately double back (cross-hatch pattern) roll the mixture. Apply mixture at 16 mils thick (100 sq. ft./gallon)
4. Ensure that a crew member is using a high-powered backpack leaf blower. *The blower must follow immediately after the double back roll.* OR spray denatured alcohol over the wet coating as it is applied to give it a funkier, crater effect. *Do not wait until the entire floor has been coated because the product may already be hard.* When using the leaf blower or denatured alcohol, walk backwards to keep spiked shoe marks out of the coating.
5. After 30 minutes or when dry to touch, back roll and squeegee a clear top coat of Hybrid XT at 3.5 mils (500-600 sq. ft./gallon)

## Hybrid XT Quartz Double Broadcast System

1. Apply colored primer coat at coverage rate of 350-400 sq. ft. per gallon.
2. After 20 minutes or when tacky to touch, apply colored base coat at 125-200 sq. ft. per gallon, and broadcast colored quartz onto wet base coat at roughly 50 pounds per 100 sq. ft.
  - a. When dry and quartz is set within curing base coat, remove excess quartz from surface by sweeping and vacuuming.
3. When dry apply clear grout coat at 125-200 sq. ft. per gallon, and broadcast colored quartz onto wet base coat at roughly 50 pounds per 100 sq. ft.
  - a. When dry and quartz is set within curing base coat, remove excess quartz from surface by sweeping and vacuuming.
4. When dry, apply clear top coat at coverage rate of 125-150 sq. ft. per gallon.
5. When dry, apply a second top coat if desired at a coverage rate of 200-300 sq. ft. per gallon.

## Hybrid XT Solid Color System

1. Apply colored primer coat at a rate of 350-400 sq. ft. per gallon.
2. After 20 minutes or until tacky, apply colored finish coat at 100-400 sq. ft.
3. Add additional 1-2 top coats as necessary.

## Hybrid XT Clear System

1. Apply clear primer coat at a rate of 350-400 sq. ft. per gallon.
2. After 20 minutes or until tacky, apply clear finish coat at 100-400 sq. ft.
3. Add additional 1-2 top coats as necessary.

## Product Storage and Maintenance

Keep separate pails of Hybrid XT Part A and Part B stored indoors in a dry area. Do not store product in freezing temperatures.

**\*It is recommended to wait 3 days after installation of floor before initial cleaning.**



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- Sweep and/or mop daily to remove dust and debris.
- Use a damp mop as needed, utilizing warm water and a gentle detergent. Rinse completely.
- Machine scrub as needed with a combination of warm water and a gentle detergent. It is suggested to use non-abrasive scrubbing pads and scrub at a low speed on the machine.
- Use caution when introducing new cleaners to the floor. It is suggested to test a patch of floor in an inconspicuous location to be sure that the cleaner will not harm the surface.

If a leak or spill occurs, soak up material and dispose rags or towels in conformity with local established regulations.

## Installation Conditions

### Temperature

Hybrid XT has a range of application from 0°F to 100°F. **\*Note** that temperature/humidity will affect cure times; ideal application temps would be from 40-90 degrees Fahrenheit.

**When it is hot or humid, take care not to apply Hybrid XT at more than 16 mils DFT without re-applying multiple coats. Do not use more than 10 mils DFT per coat for vertical surfaces.**

The Substrate must be at 5°F (3°C) above the dew point. Warning: Protect the separated Part A and Part B liquid from all moisture (most commonly: dew, high humidity, and direct moisture) until fully cured. If the liquid is exposed to moisture it may result in a failed installation.

If Hybrid XT cures in temperatures outside of the recommended \*Temperature Application Range or is exposed to moisture, the product may blister, bubble, or lose the glossy surface.

### \*Temperature Application Range

Condition	Material	Surface	Ambient	Humidity
Ideal	55-95°F (13-35°C)	55-95°F (13-35°C)	55-95°F (13-35°C)	25-50%
Maximum	100°F (38°C)	100°F (38°C)	100°F (38°C)	0%
Minimum	0°F (-18°C)	0°F (-18°C)	0°F (-18°C)	85%

### Packaging and Storage

Kit Size	2 Gallon, 10 Gallon, 100 gallon
Weight	9.3 lb/gal. (4.2 kg/gal.)
Flash Point (Setaflash)	Part A: >200°F (93°C) Part B: >200°F (93°C)
Storage	60-100°F (16-38°C)
Shelf Life (Unopened and at Recommended Temperatures)	12 months Part A 12 months Part B
Part A	ISO
Part B	Resin



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Properties	
Solids by Volume	100%
Volatile Organic Compounds	0.0 #/gallon
Suggested DFT	10-60* mils DFT
Mix Ratio by Volume	1:1
Theoretical Coverage	200 square ft./gal. at 8 mils

V-8 Standard Processing Properties	
Gel Time	70 minutes at 75°F (25°C)
Working Time	20-25 minutes at 75°F (25°C)

Technical Data	
Test	Outcome
Tensile Strength (PSI) ASTM D412	2920
Tear Strength (PLI) ASTM D624	375
Flexibility (1/8" Mandrel) ASTM 1737	Pass
Viscosity B Side CPS	750 (75°F)
Ratio-PBV	1:1 (A & B)
Coefficient of Friction	0.60

72 Hour Spot Test Chemical Resistance Data for Product			
Chemical	V8	Chemical	V8
50% HNO <sub>3</sub>	8	57% HI	8*
37% HCl	10	50% H <sub>3</sub> PO <sub>4</sub>	5
50% NaOH	10	Anti Freeze	10
50% H <sub>2</sub> SO <sub>4</sub>	10	Motor Oil	10
Brake Fluid	10		

Rating Guidelines	
0 to 1 -	75% -100% film dissolved
1 to 2 -	50% - 75% film dissolved
2 to 3 -	25% - 50% film dissolved
3 to 4 -	1% - 25% film dissolved
4 to 5 -	Severe film damage, cracking, pinholes
5 to 6 -	Film moderate to heavy damage, swollen, dulled
6 to 7 -	Film moderately damaged, haze, residue
7 to 8 -	Film with slight or no damage, slight haze, residue
8 to 9 -	Film in very good condition
10 -	Film unchanged, excellent condition

**\*Note: All samples using 57% HI had purple iodine discoloration due to the nature of the acid in the air. Samples were placed at room temperature for 72 hours after application of one ml of solvent on 16 mil film of products.**

#### May 2014

Xtreme Engineered Floor Systems, Inc. acknowledges that this TDS for Hybrid XT is valid and correct to the best of our knowledge on this date of publication, May 2014. Always contact Xtreme Engineered Floor Systems, Inc. before ordering to verify if any changes have been made as this TDS may change without prior notice. We are not liable for bad installations of V-8 High Performance Floors and/or misuse of the product.

Chemical Resistance	
Chemical	Result (25°C)
Acetic Acid (100%)	C
Acetone	C
Ammonium Hydroxide (50%)	R
Benzene	C
Brine-Saturated H <sub>2</sub> O (310g/l)	R
Chlorinated H <sub>2</sub> O	R
Clorox® (10%) H <sub>2</sub> O	R
Diesel Fuel	RC
Gasoline	RC
Gasoline / 5% MTBE	RC
Gasoline / 5% Methanol	RC
Hydrochloric Acid (37%)	R
Hydrofluoric Acid (10%)	NR
Hydraulic Fluid (oil)	RC
Isopropyl Alcohol	R
Lactic Acid	RC
MEK	RC
Methanol	R
Methylene Chloride	C
Mineral Spirits	RC
Motor Oil	R
MTBE	C
Muriatic Acid (10%)	R
NaCl / H <sub>2</sub> O (10%)	R
Nitric Acid (50%)	R
Phosphoric Acid (10%)	R
Phosphoric Acid (50%)	NR
Potassium Hydroxide (10%)	R
Potassium Hydroxide (20%)	R, Dis
Propylene Carbonate	RC
Skydrol®	C
Sodium Hydroxide (25%)	R
Sodium Hydroxide (50%)	R
Sodium Hypochlorite (10%)	R
Sodium Bicarbonate	R
Stearic Acid	R
Sugar /H <sub>2</sub> O (5%)	R
Sulfuric Acid (10%)	R
Sulfuric Acid (50%)	R
Toluene	R
1,1,1-Trichlorethane	C
Trisodium Phosphate	R
Vinegar / H <sub>2</sub> O (5%)	R
H <sub>2</sub> O	R
H <sub>2</sub> O (14 days @ 82°C)	R
Xylene	RC

#### Chart Key

R → Recommended	Little or no visible damage
RC → Recommended Conditional	Some Effect, swelling, discoloration
C → Conditional	Crackling-wash down within 1 hour of spillage to avoid effects
NR → Not Recommended	Dis → Discoloration