



## ASPART-X Chip-Floor Application

### ***Full Broadcast Application***

The **ASPART-X** full broadcast system is intended for use as an industrial floor coating that is aesthetically pleasing, long lasting and easy-to-clean, as well as featuring chemical and impact resistance properties. The coating is applied in 3 separate applications:

- 1) A **CLEAR**, “**PRIME COAT**” is applied at 3 mils wet film.
- 2) A **PIGMENTED**, “**TACK COAT**” is applied at 2 mils wet film. This is necessary to accept the chip broad cast (the tack coat should be pigmented in a corresponding color to the “CHIPS”).
- 3) The **CLEAR**, “**TOP COAT**” is applied at 6 mils wet film.

The following is a step-by-step guide to applying the **ASPART-X FLOORING SYSTEM**.

### **Equipment Required**

- Diamond Grinder (a 110 volt EDCO grinder with 6 diamond heads is recommended). The grinder must be rated for the size of the surface area to be ground.
- Pulse back vacuum - to control dust from both the floor grinder and hand-grinders
- Hand-held grinder – must have dust collection attachment
- Crack Chaser

**Note:** ensure you have the proper size mandrel (ie. ¼”, ⅜”, or ½”) for the hand-held grinder being utilized

### **Preparation of Substrate**

- Clear area to be coated of **ALL** debris and **ALL** items that will not be coated.
- Sweep or blow off entire area to be coated.
- Locate all control/expansion joints (useful in dividing floor into application zones).
- Identify any potential areas of contamination that may need to be cleaned; oil spills may require emulsification prior to application of base coat.
- Determine what imperfections exist in floor, such as cracks, broken concrete or spalls.
- Grind all imperfections to expose a suitable base for repair.
- Use **MEND-X** crack filler to repair all imperfections.
- Allow **MEND-X** to cure for 45–50 minutes\*.

\* *refer to “**crack and joint repair**” section*



### **Surface Grinding**

- Grind entire concrete surface with a diamond floor grinder. Remove enough surface to expose virgin concrete, with no old surface remaining. (Make sure a pulse back vacuum is used to control the concrete dust).
- Hand-grind all areas that cannot be accessed by the floor grinder. All surfaces to be coated must be ground, exposing a fresh surface.
- Blow or vacuum entire surface to be coated, leaving no loose material behind\*\*

**\*\*Refer to “*surface preparation for concrete*” section for more details**

### **Items Needed to Apply ASPART-X FLOORING SYSTEM**

- ASPART-X IC 320 CLEAR for the “**Prime Coat**”  
Prime Coat is applied @ 3 mils wet film, 1 mixed gallon of ASPART-X IC 320 will cover approx.455 sq. ft. \*\*\*
- ASPART-X IC 320 PIGMENTED for the “**Tack Coat**”  
Tack Coat is applied @ 2 mils wet film (pigmented to corresponding chip color), 1 mixed gallon of ASPART-X IC 320 will cover approx. 682 sq. ft.\*\*\*
- ASPART-X IC 320 CLEAR for the clear “**Top Coat**”  
Top Coat is applied @ 6 mils wet film, 1 mixed gallon of ASPART-X IC 320 will cover approx. 227 sq. ft. \*\*\*  
**\*\*\*A reduction of 15% has been subtracted from theoretical coverage rates to account for roller absorption and excess product left in roller trays and container.**
- Graduated mixing cups
- Pour lids
- Stir sticks
- Floor scraper
- Rollers
- Wet mil gauge
- Chips
- Roller trays - must be deep trough/high capacity
- Usually 1/8” LINE-X DECO-CHIP
- Chips will cover at a rate of 5-6 sq. ft. per pound. The skill of the applicator will determine the coverage rates. Always assume the lower rate of coverage so as not to run out of chips.
- 18” wide with 3/8” nap of shed resistant synthetic or lamb’s wool with a phenolic resin core. Always count on having at least 1 new roller for each coat (more is better).



- 18" wide with 1/4" nap of shed resistant synthetic or lamb's wool with a phenolic resin core. **THIS ROLLER IS OPTIONAL AND IS ONLY USED FOR BACK ROLLING.**
- Extendable roller handles capable of extending 10-20 ft.
- Squeegee (for application of top coat)
- Duct tape
- Masking tape
- Plastic sheeting
- Razor knife
- Leaf blower
- Spiked shoes
- 5-gallon buckets (minimum quantity of 2 - quantity depends on size of job)
- Safety gear: Nitro gloves, eye protection, long sleeve shirt, 3M approved respirator

### **Mixing ASPART-X IC 320**

- ASPART-X IC 320 is a 1:1 mix ratio
  - i.* Always pre-mix "B" (resin side) prior to mixing with "A"
  - ii.* Mix equal parts of A&B in a graduated mixing cup (mix only enough product that can be used in a 20-25 minute timeframe)
  - iii.* Stir product to a smooth consistency (avoid vortexing material as this will introduce moisture into the product, causing pre polymerization)
- Pot life of ASPART-X IC 320 is approximately 30-40 minutes.
- Humidity will greatly **decrease** pot life as ASPART-X IC 320 is a moisture cure product.
  - Note:** Pot life is calculated at 70-degree ambient temperature and at 40% relative humidity.

### **Application Process**

- **Clear, "Prime Coat"**
  - i.* Mix ASPART-X IC 320 CLEAR, "PRIME COAT" in a large mixing container. Refer to coverage chart for 3 mil coat.
  - ii.* Fill roller tray with ASPART-X IC 320 CLEAR, "PRIME COAT".
  - iii.* Submerge roller (filling to capacity), start rolling. Try to achieve an even coat of 3 mils wet film.



- iv. Roll east and west, as well as north and south to achieve an even coating.  
**Note:** The product is in the process of polymerizing – you need to move at a swift pace.
- v. Back-roll in one direction to insure that no roller marks are present.
- vi. Let this coat stand for 1 hour or until tack free.
- vii. When coating is dry, inspect for any contamination\*\*\*\*

\*\*\*\* refer to “**substrate repair**” section for specific contamination repairs

- **Pigmented “Tack Coat” and Chip Broadcast**

- i. Mix ASPART-X IC 320 **PIGMENTED, “TACK COAT”** in a mixing container. Refer to coverage chart for 2 mil coat.
- ii. Fill roller tray to capacity with ASPART-X IC 320 **PIGMENTED “TACK COAT”**. Submerge roller and fill it to capacity.
- iii. Start rolling, trying to achieve an even coat of 2 mils wet film.
- iv. Roll east and west, as well as north and south to achieve an even coating.
- v. When applying chips to a large floor, it may be necessary to work in tandem. One person should apply the chips, while the other rolls on tack coat.
- vi. Start by giving yourself a cushion of 8-10 ft. of tack coat.
- vii. The person applying chips will need to wear spiked shoes, as he will be broadcasting chips on wet material in front of him. Teamwork is needed to control the speed of application.
- viii. Chips must be broadcast to full refusal to achieve a consistent look.
- ix. Allow coating and chip broadcast to cure for a minimum of 1 hour.

- **Removal of Excess Chips**

- i. Test coating by doing a thumb twist to determine if coating is ready for scraping. If chips do not twist under your thumb you can continue.
- ii. Use a leaf blower to blow all unattached chips to a collection area. Carefully collect these undamaged chips as they can be used again.
- iii. Use a floor scraper to scrape remaining chip base down so that no high edges remain. Scrape north and south in 3 foot increments traveling east and west across the floor. Repeat this process until entire floor has been scraped.
- iv. Turn 90 degrees and repeat the scraping process (scrape east and west in 3 foot increments traveling north and south until entire floor has been scraped).
- v. Blow all remaining chip residual into one corner of the room and collect. These are now **“broken chips”** and cannot be used again. Disregard as appropriate.
- vi. Glide hand over the surface to check for desired smoothness.



- **Clear, “Top Coat”**

- i.* Refer to coverage chart for 6 mil coat.
- ii.* Mix ASPART-X IC 320 **CLEAR, “TOP COAT”** in a large mixing bucket (mix enough product to coat 200-300 sq. ft. at a time at 6 mils as this process will go very quickly).
- iii.* Pour ASPART-X IC 320 **CLEAR, “TOP COAT”** onto the floor forming a 4-6” ribbon, traveling from left to right. Use squeegee to smooth top coat back and forth while pulling it back onto the uncoated floor.
- iv.* Repeat this process until there is enough space to add a second person to work-in the initial squeegeed product (*this person will need to be on spiked shoes as he will be on a wet surface*).
- v.* It is very important to use the roller to “*work-in*” the product and ensure an even 6 mil coating. Start by using the roller to “push” all excess product down toward the squeegee (this roller should continue this process by following the squeegee across the entire floor).
- vi.* Finish by back-rolling. You must finish with one complete back-roll in same direction over the entire floor to avoid roller marks. This process should start as soon as the first roller is 15 to 20 feet of the back wall and continue uninterrupted across the entire floor (make sure the first roller and squeegee are working at a pace where the back roller will not catch them).
- vii.* When the job is complete, tape off or tag all areas with **“Do Not Enter”** warnings to protect your work area.

### **Cure Time**

- 4 hours for light foot traffic
- 24 hours for return-to-service work loads

### **Recoat Window**

- 1 hour minimum to 24 hours maximum

### **Clean-Up**

- Clean-up all tools with Xylene.
- Dispose of all used rollers.
- Allow roller trays, mixing cups and 5-gallon buckets to stand for minimum of 24 hours. The dry product can then be peeled away and items can be reused.
- Remove all masking within 4-6 hours of final coat.
- Make sure work area is clean of all trash or debris.