



Technical Application Specification: TAS – 805 B

EPAMINE 'HS' CLEARSEAL

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Purpose and Scope of this Specification:

This specification shall act as the Florinc Polytech Inc. Manufacturers Standard Application Specification of Installation Procedures for Florinc Polytech Epamine 'HS' Clearseal. These application procedures for Florinc Polytech Epamine 'HS' Clearseal are intended solely for applications over previously prepared, structurally sound concrete surfaces (for any other surfaces: Consult Florinc Polytech Inc.), by professionally trained and qualified contractors with full knowledge of industry standards and practices. Florinc Polytech makes no claim to contractor's qualification; however annual training schools are available for contractors seeking "factory trained" status for warranty purposes.

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System Description:

Floric Polytech Epamine 'HS' Clearseal is a thin mil epoxy floor system application consisting of a light "broom" blast, an epoxy primer, followed by 2 coats of a high build 100% solids clear epoxy.

Thickness: 26-32 Mills Nominal

Description/Packaging & Coverage

<u>Item #</u>	<u>Primer Coat: EPAPRIME</u>	<u>Amount Required (Per 100 sq ft)</u>
1786-00000	Epamine 'HS' 'A' Component (5 gallon pail bulk)	0.060 pail
1939-00000	Epa-Prime 'B' Component (5 gallon pail bulk) Mix ratio: 3 parts 'A' to 2 Parts 'B' by volume. Coverage: 200 sq ft per mixed gallon.	0.040 pail
<u>Item #</u>	<u>Body Coats (2): Epamine 'HS' Clearseal</u>	
1786-00000	Epamine 'HS' Clearseal 'A' Component (5 gallon pail bulk)	0.1794 pail
1787-00000	Epamine 'HS' 'B' Component (5 gallon pail bulk) Mix ratio: 3 parts 'A' to 2 Parts 'B' by volume. Coverage: 160 sq ft per gallon per coat (2 coats required).	0.1194 pail

NOTE: Varying job site conditions may effect actual material consumption as well as the texture and pattern selected. The above table is designed only as a guide in determining actual materials required. Mock up samples and/or job site mock-ups are highly recommended.

Test Sections and Mock ups:

Experimentation with application procedures are highly recommended prior to tackling a project with this product. It is recommended that samples and mock-ups be used. Representative test sections must be produced for the Owner's approval in writing.

1) STEP ONE: SURFACE PREPARATION AND SUBSTRATE EVALUATION

- A. Prior to performing any installation of Floric Polytech materials the substrate should be evaluated for unacceptable conditions such as dusting, powdering, and/or other type of latent structural defects. Substrate preparation should be started only after all substrate requirements and environmental conditions have been met, and relevant substrate testing has been completed.
- B. Check moisture vapor pressure using a Calcium chloride moisture test kit. Report these readings and any other unusual slab conditions to Owner, Architect, General Contractor and Floric Polytech, Inc. immediately. **Note:** All Moisture related information must be copied to Floric Polytech for warranty purposes. **Note:** any tampering or disturbance with this test can yield non-accurate high-test results, causing added costs and time to the schedule. Test kits should be set one per thousand square feet.
- C. Areas in the floor contaminated with hydraulic fluid, cutting oils, and/or any other such penetrating material prone to migration, should be marked, degreased and shot-blasted until they turn white. Stubborn stains may need to be degreased, flame burnt, and then shot-blasted. Immediately prime-coat these areas with Epa-Prime to avoid further contaminant migration to the surface

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- D. Floric Polytech Epamine 'HS' is a thin-section flooring (26-32 mils) and will thus reflect any pronounced grooves or scores within the substrate. . The degree of surface preparation specified may require that pock-marks, rough spots, and/or surface irregularities in the concrete should be repaired with the appropriate Floric Polytech approved product. Minor irregularities can be spot-patched using Floric Polytech SRP-100. Consult Floric Polytech for substrate patch and repairs products, treatment of cracks, cold joints, control joints, expansion joints, seismic joints, deep fill patches, high early strength concrete design for full depth repairs, and adjoining drain and edge terminations.
- E. Surfaces should only be lightly "brush-blasted" with machines operating at high speed levels ranging, using reduced shot size (S170 - S230), appropriate for the equipment used. Shot blasting should be performed in accordance with the International Concrete Repair Institute (ICRI) Standards for concrete surface preparation. The pattern of blasting should be performed parallel to the storefront in straight lines except 5-6 ft from each end and edges which will run parallel with the wall. Certain shot-blast machines ("Blastrac Model 15D Super", or equal) are specially designed for this type of preparation and are recommended for this use.
- Caution:** The production of acceptable shot-blasted surfaces for application of Epamine 'HS' is highly dependent upon the skill of the shot-blast machine operator.
- F. Shot-blasted concrete surfaces must be swept, vacuumed, and/or blown free of any debris, residual dust, and steel shot to avoid contamination of subsequent sealer coats.
- G. Before proceeding to the mixing and application steps, concrete substrate must be clean and dry, with sufficient material removed to provide optimum bond to a sound surface. Optimum bonding substrates shall be shot-blasted and free of laitance, glaze, efflorescence, and any other bond-inhibiting curing compounds or form release agents, etc.
- H. Do not proceed to mixing and application steps if substrate and environmental conditions exceed temperature and humidity limits of 55-90°F (12-33°C), and not to exceed 95% Relative Humidity. A five percent variance between wet bulb reading and relative humidity is required prior to the application of Floric Polytech materials.

2) STEP TWO: PRIMER COAT APPLICATION

Floric Polytech Epa-Prime

Typical Application Thickness: 8 wet mils (200 Microns)

Approximate quantity of materials required: Epa-Prime will cover ~ 200 ft² per liquid gallon as a primer coat.

Floric Polytech Epa-Prime is a 2 component epoxy primer which consists of 3 parts Epamine 'HS' 'A' component mixed with 2 parts Epa-Prime 'B' Component.

Note: This Coverage will only be achieved on a lightly "brush" shot-blasted surface.

Caution: Coverage's over heavily shot-blasted, scarified, scabbled, or milled surfaces will be drastically less and should be back rolled with long nap roller to avoid ponding in low areas. Coverage's over toppings containing gypsum (plaster), anhydrite, or other absorptive materials may also reduce coverage rates.

MATERIALS REQUIRED TO COVER ONE HUNDRED Sq. Ft. (9,3 SQ. METERS) IN A SINGLE COAT MATERIAL APPLICATION AT 5 WET MILS (125 Microns).

Bulk Packaging

Epamine 'HS' Comp. A (5 gal. Pail bulk)	.060 pail
Epamine 'HS' Comp. B (5 gal. Pail bulk)	.040 pail

Mixing, mix ratios and packaging:

- A. Pre-mix containers of the individual 'A' and 'B' components with a jiffy type mixing blade at using a variable speed mixing drill at 450-700 rpm to re-blend any settlement that may have occurred during storage and shipment.

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- B. Bulk Packaging: Bulk packaging is not pre-weighed for its proper mix ratio and must be poured into a separate volumetric measuring device such as marked quart, or gallon container.

Bulk packaging mix ratio is 3-parts Epamine 'HS' 'A' -to- 2-parts Epa-Prime 'B' by volume.

Example:

3 quarts Epamine 'HS' A-Component + 2 quarts Epa-Prime B-Component

3 gallons Epamine 'HS' A-Component + 2 gallons Epa-Prime B-Component

Pre-measure by volume Epamine 'HS' A-component into a separate mixing vessel. Pre-measure by volume Epa-Prime B-component into the separate mixing vessel.

Note: That there are big red 'A' and black 'B' labels on the bulk packaging.

Note: Floric Polytech Epamine 'HS' component 'A' is clear in color and Epa-Prime 'B' component is amber color.

- C. Using a variable speed drill and jiffy type mixing paddle, blend Epamine 'HS' 'A' and Epa-Prime 'B' components together at a medium to high speed to create adequate shear mixing for a minimum of 3-5 minutes. Completely drain contents of the mixing vessel into a 2nd mixing vessel, scraping any unmixed material into the vessel, and mix for an additional 30- 60 seconds. Take this mix and transfer it to a third container, re-using the third container for transporting material to and from mixing station

Note: You must never mix materials in greater volume than 6 gallons per batch, as the material will not be thoroughly blended. For example, do not mix three 5 gallon pails of Epamine 'HS' 'A' component with two 5 gallon pails of Epa-Prime 'B' component, as this volume of material will not shear into each other adequately with conventional site mixing methods. Inadequate mixing will cause the materials to dry improperly and may stay sticky although clear in color.

Epa-Prime Application:

- A. Pour mixed material out in a line starting parallel to wall. Spread 100% epoxy material with a long, clean, neoprene asphalt type squeegee and back roll it with a quality 1/4" mohair roller cover. (Roller covers should be shed-resistant, have a phenolic resin core, and be de-fuzzed using duct tape.) Apply material in a uniform coat leaving no ridges or puddles. Avoid excessive re-rolling. Spread material at a rate of no less than 8-10 wet mils minimum per coat.

Note: It is important to maintain a wet edge when installing material. Maintain fresh material along the squeegee edge, constantly working all edges to avoid cold joints.

Recommendation: Pour bays of no larger than 40-60ft wide per 4-5 person crew.

- B. Epa-Prime has a 30 minute pot life; however it will dry for recoat in 8-12 hours.

3) STEP THREE: BODY COATS APPLICATION

Epamine 'HS' Clearseal

Typical Application Thickness: 10-12 wet mils per coat (Two coats required)

Approximate quantity of materials required

Epamine 'HS' Clearseal will cover ~133- 160 ft² per liquid gallon per coat.

Note: This Coverage will only be achieved on a lightly "brush" shot-blasted surface.

Caution: Coverage's over heavily shot-blasted, scarified, scabbled, or milled surfaces will be drastically less and should be back rolled with long nap roller to avoid ponding in low areas. Coverage's over toppings containing gypsum (plaster), anhydrite, or other absorptive materials may also reduce coverage rates.

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MATERIALS REQUIRED TO COVER ONE HUNDRED Sq. Ft. (9,3 SQ. METERS) IN A TWO COAT MATERIAL APPLICATION AT 24 WET MILS (500 Microns).

Bulk Packaging

Epamine 'HS' Clearseal: A Component (5 gal. Pail bulk)	0.1794 pail
Epamine 'HS' B Component (5 gal. Pail bulk)	0.1196 pail

Primer evaluation:

- A. Prior to performing the installation of Floric Polytech 'HS' Colorseal the primer should be evaluated for unacceptable conditions such as contamination by foreign materials. Body coat installation should be started only after all primer requirements and environmental conditions have been met, and relevant primer testing has been completed.
- B. Areas in the floor contaminated with hydraulic fluid, cutting oils, and/or any other such penetrating material prone to migration, should be marked, degreased and shot-blasted until they turn white. Stubborn stains may need to be degreased, flame burnt, and then shot-blasted. Immediately prime-coat these areas with Epa-Prime to avoid further contaminant migration to the surface.
- C. Before proceeding to the mixing and application steps, Primer coat must be fully cured, clean and dry. Do not proceed to mixing and application steps if substrate and environmental conditions exceed temperature and humidity limits of 55-90°F (12-33°C), and not to exceed 95% Relative Humidity. A five percent variance between wet bulb reading and relative humidity is required prior to the application of Floric Polytech materials.

Mixing, mix ratios and packaging:

- A. Pre-mix containers of the individual 'A' and 'B' components with a jiffy type mixing blade at using a variable speed mixing drill at 450-700 rpm to re-blend any settlement that may have occurred during storage and shipment.
- B. Bulk Packaging: Bulk packaging is not pre-weighed for its proper mix ratio and must be poured into a separate volumetric measuring device such as marked quart, or gallon container.

Bulk packaging mix ratio is 3-parts 'A' -to- 2-parts 'B' by volume.

Example:

3 quarts A-Component + 2 quarts B-Component

3 gallons A-Component + 2 gallons B-Component

Pre-measure by volume A-component into a separate mixing vessel. Pre-measure by volume B-component into the separate mixing vessel.

Note: That there are big red 'A' and black 'B' labels on the bulk packaging.

Note: Floric Polytech Epamine 'HS' Colorseal component 'A' is beige in color and 'B' component is clear with a slight amber tint in pail.

- C. Using a variable speed drill and jiffy type mixing paddle, blend 'A' and 'B' components together at a medium to high speed to create adequate shear mixing for a minimum of 3-5 minutes. Completely drain contents of the mixing vessel into a 2nd mixing vessel, scraping any unmixed material into the vessel, and mix for an additional 30-60 seconds. Take this mix and transfer it to a third container, re-using the third container for transporting material to and from mixing station

Note: You must never mix materials in greater volume than 6 gallons per batch, as the material will not be thoroughly blended. For example, do not mix 1½ five gallon pails of 'A' component with 1 five gallon pail of 'B' component, as this volume of material will not shear into each other adequately with conventional site mixing methods. Inadequate mixing will cause the materials to dry improperly and may stay sticky.

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Epamine 'HS' Clearseal Application:

- A. Pour mixed material out in a line starting parallel to wall. Spread 100% epoxy material with a long, clean, neoprene asphalt type squeegee and back roll it with a quality 1/4" mohair roller cover. (Roller covers should be shed-resistant, have a phenolic resin core, and be de-fuzzed using duct tape .) Apply material in a uniform coat leaving no ridges or puddles. Avoid excessive re-rolling. Spread material at a rate of no less than 10-12 wet mils minimum per coat.

Caution: It is important to maintain a wet edge when installing material. Maintain fresh material along the squeegee edge, constantly working all edges to avoid cold joints.

Recommendation: Pour bays of no larger than 40ft wide per 4 person crew.

- B. After first body coat of Epamine 'HS' Colorseal is sufficiently cured (~12-16 hours, assuming surface and ambient temperatures are 70°), the second coat can be applied following the same application procedures as the first coat.
Note: The second coat must be applied within 36 hours of previous coat to ensure inter-coat adhesion.

4) STEP FOUR: CARE AND MAINTENANCE

Surface may be cleaned using clean water and a non-caustic, biodegradable detergent cleaner with a damp mop application. Maintain Floric Polytech Epamine 'HS' application via occasional waxing with Floric Polytech Synthetic Floor Finish (SW-117 or Top SW-120) in accordance with Technical Application Specification TAS-990-991.

ENVIRONMENTAL CONDITIONS:

1. For safety reasons and the drying/curing process, adequate ventilation is required during the entire installation process of both to evacuate any fumes, and to reduce build up of moisture for the application.
2. Sealer should be applied in declining temperature to avoid out gassing of substrate which could affect sealing application cure.
3. A five percent variance between wet bulb reading and relative humidity is required prior to the application of sealer.

General Cautions:

1. Maintain proper air ventilation at all time. Avoid production of fine mists and sprays.
2. For proper workability it is important that Floric Polytech materials be stored and mixed at a temperature of 55°F - 90°F (18°C – 33°C).
3. The substrate temperature must be between 55°F - 90°F for proper application.
4. All concrete curing agents, sealers and hardeners must be removed from the concrete prior to application of the first coat.
5. Use materials in proper ratio. Scrape components from shipping containers to assure proper mix ratio is maintained.
6. Do not turn mixing vessels upside down to drain on the flooring surface. Unmixed resin from the side may produce soft or uncured spots on the flooring surface.
7. Keep the unfinished flooring surface clean. Do not track dirt, grease, or any other contaminate onto the unfinished flooring surface.
8. Always read manufacturers MSDS and literature prior to opening and applying material.

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Cautions for the Safe Handling of Polymeric Resinous Floor Systems:

1. Read and observe precautionary statements on product labels.
2. Keep containers tightly closed.
3. Keep out of reach of children.
4. Professional use only. Do not allow application by untrained workers.
5. Remove contaminated clothing and shoes. Wash clothing before re-use.
6. Use of safety goggles and chemical resistant gloves is recommended. Wear only full-length trousers and long-sleeve shirts. Apply protective creams to exposed skin areas.
7. In general, prolonged contact of polymeric resins with skin may cause irritation. Contact with curing agents may cause skin burns. Products may cause skin sensitization or other allergic responses. Avoid all contact with eyes.
8. In cases of contact with skin, immediately remove the material with soap and water. Upon completion of work at lunchtime or end of day, carefully check all skin surfaces for any traces of polymeric resins. Wash with soap and water. If wash facilities are not located nearby, establish a water washing station at work site. Do not use solvents to remove polymeric resins from skin, as solvents will drive polymeric resins deeper into skin. If redness or skin rashes develop, consult a physician.
9. In the event of eye contact, flush immediately with plenty of water for at least 15 minutes. Consult a physician immediately.
10. Mix and apply polymeric resin materials only in conditions of good ventilation. Avoid breathing vapors. Certain polymeric resin products and/or certain working conditions require use of NIOSH/MSA organic vapor respirator. Consult MSDS.
11. First Aid for Inhalation: If effects occur, remove patient to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get immediate medical attention.

ADDITIONAL NOTES:

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