

InsuCrete ST

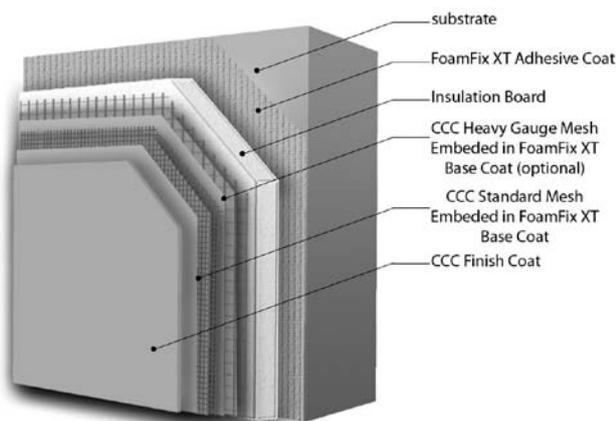
A Standard Class PB Exterior Insulation And Finish System (EIFS)



DESCRIPTION • *InsuCrete ST* is an Exterior Insulation and Finish System (EIFS) that provides the ultimate in heat insulation while offering an attractive and highly decorative wall finish system. The system is composed of polystyrene foam boards that are adhesively and/or mechanically attached to the exterior of a building, thereby completely enveloping the building and providing the highest level of resistance to heat transfer and eliminating any thermal bridges through which heat may enter or escape. Use of polystyrene's unique and unrivalled insulation properties is made possible by CCC's specially-formulated adhesive and base coat into which the reinforcing fiberglass mesh is embedded, as well as a variety of wall finish products that produce an attractive and functional building exterior façade. Thanks to CCC's advanced materials, *InsuCrete ST* offers unparalleled design freedom, energy efficiency, weatherability, durability, beauty, and cost effectiveness. EIFS has proven itself time and time again, over a broad range of applications and in climates from arctic to tropical.

USES • *InsuCrete ST* is used for new or retrofit buildings as an exterior façade and cladding that provides a high level of resistance to heat transfer in a variety of climates. While being an energy efficient and economical system, *InsuCrete ST* also shatters all barriers to design freedom and creativity. With the aid of CCC's unique finish stuccos, the designer has an unlimited choice of colors and textures that can be easily and effortlessly created. *InsuCrete ST* is appropriate for commercial, industrial, institutional as well as residential buildings. *InsuCrete ST* can also be used to restore the exterior façade of older buildings.

SYSTEM DETAIL



SYSTEM COMPONENTS

- **Insulation Board:** For the ultimate thermal insulation efficiency, the designer may choose between expanded polystyrene (EPS) or extruded polystyrene (XPS) rigid insulation boards, which are attached to an approved substrate adhesively and/or mechanically, in a thickness and density that achieve the desired thermal resistance coefficient. For most applications and best handling characteristics, CCC recommends EPS of 18-24 kg/m³ density.
- **Adhesive Coat:** For maximum performance and installation speed, CCC recommends first adhering the foam board to the approved substrate using CCC's *FoamFix XT Industrial Adhesive & Leveling Compound*. Though *FoamFix XT* has been formulated and tested for maximum pull-off strength, for additional assurance in cases where high wind conditions prevail, mechanical fasteners may also be used once the adhesive coat has been allowed to fully dry.
- **Reinforcing Mesh:** *InsuCrete Mesh*, an alkali-resistant, specially woven glass fiber fabric mesh, is embedded in CCC's base coat to provide high levels of impact resistance strength. The mesh is available in a variety of sizes and weights to suit different impact resistance requirements. A minimum of two layers of reinforcing mesh is required for high-impact resistance areas such as ground floors and high traffic areas. Please refer to the relevant CCC data sheet for further information and specifications.
- **Base Coat:** Fiberglass mesh is embedded into *FoamFix XT Industrial Adhesive & Leveling Compound* on the outward face of the insulation board for impact resistance, strength and durability. *FoamFix XT* has been specially formulated to provide the adhesive strength as well as the flexibility and crack resistance required by EIFS systems. Please refer to the relevant CCC data sheet for application instructions.
- **Finish Coat:** Depending on the desired finish, the designer can choose from several of CCC's high performance materials that are unparalleled in beauty, durability and flexibility. 40 standard colors in addition to custom colors are available, and a wide range of textures and surface finishes can be easily achieved. For a traditional stucco finish where the aggregates are visible, such as Spanish, Friez, Glacier and Float finishes, *ArtGrout 801 Colored Stucco*

Finish Coat or *ArtCrete 200 Sparkling Wall Finish* provide the ultimate in performance, weatherability, workability, and crack resistance. For a semi-smooth finish, the designer can use *ArtCrete 555 Travertine Finish* or *ArtGrout 901 Lightweight Plaster*. For a super-smooth finish, burnished look, *PaveCrete 220 Micro Topping Skim Coat* simulates a Venetian plaster finish or polished marble, depending on the tools and colors used.

- *Sealer Coat (Optional)*: For added water repellency and stain resistance, CCC highly recommends sealing the finish coat with one of its water-based penetrating sealers: *A-Z Hydro Seal*, *A-Z Penetrating Sealer WB*, or *A-Z Penetrating Sealer SMK*. Please refer to the relevant CCC data sheet for further instructions.

ADVANTAGES •

- ✓ **Design freedom:** Energy efficiency and thermal insulation need not come at the expense of flexibility; *InsuCrete ST* offers the designer and architecture an endless array of options. EPS and XPS are light weight and can be fitted over a variety of substrates. In addition, with the range of finish coats available from CCC, any building outfitted with *InsuCrete ST* would be virtually indistinguishable in appearance from a finely finished building exterior.
- ✓ **Energy efficiency:** Among building materials, EPS and XPS are unrivalled in their resistance to heat conduction, adding thermal resistance values of up to R4 per inch. In addition, EIFS is unique among thermal insulation system in that it is the only system that completely and thoroughly envelopes the exterior of a building, eliminating any thermal bridges that hinder the performance of other insulation systems. Therefore, heating and cooling costs are noticeably lower using *InsuCrete ST* in lieu of other insulation systems.
- ✓ **Weatherability:** *InsuCrete ST*'s system components have demonstrated their ability to protect against the elements of the weather through years of service in all sorts of climatic conditions: from the blistering heat and humidity of the Gulf region to the harsh and wet winter of the Levant, and from the extreme and dry conditions of Afghanistan to the damp and tropical climate of Uganda.
- ✓ **Durability:** The *InsuCrete ST* system includes fiberglass reinforcing mesh that is available in a number of different strengths and specified according to strict criteria that take into account the service conditions. Embedded in CCC's *FoamFix XT*, the total wall system provides unsurpassed long-term durability and strength

that defies the common impression of the impact resistance of a foam board.

- ✓ **Beauty:** Designed not just with performance in mind, but also aesthetic appeal and beauty, CCC's finishes provide a range of colors and textures that is only limited by the designer's creativity and the applicator's skill. From a traditional Old-World textured finish to a luxurious burnished Venetian plaster look, CCC's finishes insure that beauty will not be compromised in the quest for thermal efficiency. Formulated with the highest quality admixtures and UV-resistant pigments, all CCC finishes ensure the highest standard of weather, chemical and fade resistance.
- ✓ **Cost effective:** Installation of the *InsuCrete ST* is rapid and can easily be adapted to complex project details thanks to the ease of working with and shaping EPS and XPS boards. And because CCC's finishes are cement-based coatings, *InsuCrete ST* is by far the most cost-effective exterior solution among competing systems and other EIFS systems.
- ✓ **Retrofitting:** Because it is applied to the exterior of the building over a variety of substrates, *InsuCrete ST* may be used to retrofit older buildings bestowing them with the thermal insulation possible only with today's technology, while at the same time rejuvenating the building and giving it a new and richer exterior finish.
- ✓ **Testing:** The *InsuCrete ST* System has been fully tested on the widest possible spectrum of tests and is fully code compliant with ICBO, BOCA and SBCCI.

VERSATILITY • Thanks to its modular nature and the high performance of its components, *InsuCrete ST* can accommodate a wide variety of design criteria and job requirements, such as different attachment methods, enhanced substrate protection or panelization. *InsuCrete ST* is easily modified to meet these and other specific project needs. When a job calls for something out of the ordinary, *InsuCrete ST* is often the best if not the only solution.

APPLICATION • Please refer to the CCC document "InsuCrete ST System Application Instructions" and the relevant CCC technical data sheets of the system components for application instructions.

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