



## Residential Applications for SPI Coatings

This document outlines the application of SPI coatings in a typical residence, for heat insulation, sound insulation, fire resistance, mold/mildew protection, moisture resistance and sealing from excess airflow. Use of SPI products qualifies a house for “GREEN” Status, and in certain States, for Energy Rebates.

### Coating Applications:

#### Foundation Slab:

Apply **SuperTherm®** to the foundation slab in order to block heat from drying out the surface and cracking the concrete thirty days after the slab is poured. This will also seal the concrete from moisture migration to the surface from condensation. Use the 3-coat system of **TotalSeal™** on the exterior side walls below the grade level and on the interior basement walls.

#### Garage:

Coat both the interior and exterior walls, and the ceiling with **SuperTherm®**. This application will block moisture gain and air flow through cracks, while also blocking the normal heat load. Coat the exterior of the doors with **SuperTherm®** to block the heat load, especially when facing South or West.

If the garage has a wooden door (stained), then coat the interior side of the doors with **HSC™** at 50 mils (25 sq.ft. per gallon) to block the heat re-radiation to the interior. Garage floors can be coated using **EnamoGrip®** or **TotalSeal™** to harden surface and eliminate the absorption of motor oils, dirt, etc., as well as beautifying and adding to the duration of the surface.

#### Exterior Walls:

Apply **SuperTherm®** to the exterior wall sides (rough-in sheeting) or surfaces directly over the plywood or gypboard. **SuperTherm®** will replace the Tyvek and/or poly wrap. Set brick over the walls coated with **SuperTherm®**, leaving the normal 1" or more spacing from the surface. This application will eliminate the need for fiberglass batt insulation, which absorbs and holds heat.

#### Interior Walls (of the Exterior Side Walls):

After the interior wallboard is nailed up, taped and floated facing the interior of the rooms, apply **SuperTherm®** over the entire surface, to seal from moisture and airflow. **SuperTherm®** will use its emissivity characteristics to repel heat and stabilize the air temperature inside the house. A finish color coat or wallpaper can then be applied over the **SuperTherm®**.



### **Interior Walls (of the Internal Walls):**

Coat both sides of the interior walls with **SuperTherm®**, and then apply the colored finish coat of choice. This application will stabilize air temperatures and provide soundproofing to STC 50 from one room to another. It will also hinder the spread of fire since **SuperTherm®** has a "0" flame spread.

If stucco is going to be applied to the exterior walls, apply the **Ceramic Stucco**. Once the coating has dried, apply **SuperTherm®** in a tinted tan color or light color of choice. This system is called **iSTUCCO™** and should be applied after the exterior surfaces and corners are sanded to provide for a smooth application.

### **Bathrooms:**

After the application of **SuperTherm®** to the walls and ceiling, apply **EnamoGrip®** in a light color or clear layer, to seal from steam and moisture loading.

### **Ceilings:**

After all ceilings are textured or taped and floated, apply **SuperTherm®** to insulate and improve lighting reflectivity in the rooms.

### **Fireplaces:**

Coat the back of the fireplace with **SuperTherm®** to help throw heat out into the room.

### **Attic:**

Coat the entire underside of the overhead roof decking with **HSC™** at 50 mils. Coat the flooring of the attic with **SuperTherm®**. Do not apply any fiberglass in these areas as it only absorbs and holds heat. Roof shingles will load heat and then try to transfer this heat to the interior of the attic via conduction. **HSC™** does not load the heat and therefore does not allow this transfer of heat. **SuperTherm®** repels heat by reflection and high emissivity, therefore stopping any accumulated heat from loading into the flooring structure that could transfer to the ceilings of the rooms below. This application can be also used for the roofing over the garage.

### **Roofing:**

Exterior side - install the tar paper, then **HSC™** at 50 mils (25 sq.ft./gallon) and let dry. Apply shingles directly over the **HSC™**.

These recommendations are based on SPI coatings ability to produce the heat blocking characteristics needed to prevent heat load, which in turn reduces the amount of heat available for transfer. This equates to an R-value rating. R-values were traditionally designated based on thickness, but SPI coatings work specifically on blocking heat load without thickness. You must follow what the building code dictates, and SPI coatings are much more efficient than any of the fiber materials due to their capability to block heat load, stop moisture load and block air flow.

For more information on SPI Products, please send us an email at [info@ecosolv.com](mailto:info@ecosolv.com). SPI products are manufactured by SPI in the USA in Shawnee, Kansas.