



StreetBond120™
Recommended Application Procedures



Updated: June 2016

Introduction

- StreetBond120 Hot Mix Asphalt (HMA) is an epoxy modified, acrylic, waterborne coating specifically designed for application on HMA pavements. It has a balance of properties to ensure good adhesion and movement on flexible pavement, while providing excellent durability and color stability.
- StreetBond120 is durable in a wet environment and is applied directly to the pavement surface or can be used as a coating system to seal StreetBond CemBase.
- StreetBond120 may be used on textured or non-textured HMA pavement surfaces.
- All StreetBond120 is environmentally safe and meets EPA requirements for Volatile Organic Compounds (VOC).
- StreetBond120 coatings should only be applied when the air temperature is 50°F / 10°C and rising and will not drop below 50°F / 10°C within 24 hours. No precipitation should be expected within 24 hours.
- StreetBond120 is shipped in a base color and needs to be tinted with StreetBond colorant to give the desired color.

One unit of StreetBond120 contains:

- 1 - 5 gallon / 20 liter bucket of Part A
- 1 - pint / 0.47 liter container of Part B

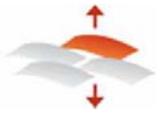


Balanced Coating Properties

All StreetBond® coatings are developed to have the highest possible performance based on six categories: Flexibility, Durability, Friction, Environmental Responsibility, Color Stability and Chemical Resistance.



Durability: StreetBond® coatings use an epoxy-modified formula that is specifically designed to meet traffic demands even in wet conditions.



Flexibility: Asphalt is flexible. Coatings therefore must have flexibility to move with it. StreetBond® coatings are specifically formulated to flex with asphalt across a wide temperature range.



Friction: Slip and skid resistant aggregates give StreetBond® coatings greater traction, making coated surfaces safer for foot and vehicle traffic.



Color Stability: Advanced acrylic polymer technology and high-quality pigments give StreetBond® coatings long-lasting color retention characteristics, especially against UV rays.



Chemical Resistance: StreetBond® coatings are not affected by fuel, engine and de-icing agents that come into contact with road surfaces. StreetBond protects the asphalt from chemical damage.



Environmentally Responsible: StreetBond® coatings are water-based and formulated to contain no solvents that are harsh to humans or the environment. Asphalt coated with StreetBond® coating is fully recyclable.

Other Features and Benefits of StreetBond120:

| | |
|-------------------------|--------------------------------|
| Low Viscosity | • Spray-able, Good Workability |
| Stabile Solution | • Long Pot-life of 24 Hours |
| Very Good Adhesion | • No Primer Necessary |
| Good Sealing Properties | • Used in Coating Systems |

Placement & Coverage

PLACEMENT

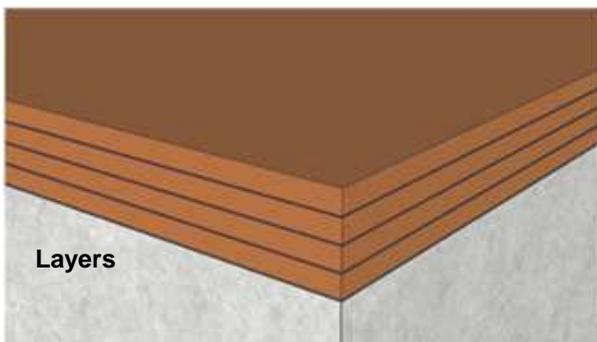
|  | | PRODUCT | | | | | | | | | | |
|---|---|---|------|---------------|------|---------------|------|--|------|--|------|---|
| | | StreetBond150 | | StreetBond120 | | StreetBond CL | | StreetBond150 over StreetBond CemBase* | | StreetBond120 over StreetBond CemBase* | | |
| | | Stamped | Flat | Stamped | Flat | Stamped | Flat | Stamped | Flat | Stamped | Flat | |
| LOCATION | No Vehicular Traffic - pedestrian, cycle paths, sidewalks | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ |
| | Very Low Vehicular Traffic - driveways, medians, plazas | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ |
| | Medium Vehicular Traffic - med traffic crossings, med traffic entries, cycle paths in traffic | ✓ | ✓ | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ |
| LEGEND | ✓ | Product is ideal for this location. | | | | | | 1 Layer** of Product over 2 Layers** of StreetBond CemBase* | | | | |
| | ✗ | Product is not suitable for this location. | | | | | | 2 Layers** of Product over 2 Layers** of StreetBond CemBase* | | | | |
| | StreetBond CemBase* | StreetBond CemBase is an option for locations where scuffing is a concern. Scuffing is a result of two factors; poor asphalt stability and stationary vehicles turning their tires. | | | | | | 3 Layers** of Product | | | | |
| | Layers** | A layer of coating is a spray pass, using the RSG spray gun, that is allowed to dry before the next pass is applied. Building the coating thickness in layers has proven to provide the best coating performance as the coating can dry and cure more quickly than a single thick pass. | | | | | | 4 Layers** of Product | | | | |

COVERAGE*

| | Layers | SQFT | | SQM | |
|--------------|--------|----------|-----------|----------|-----------|
| | | Per unit | Per layer | Per unit | Per layer |
| Textured | 3 | 200 | 600 | 18.6 | 55.7 |
| | 4 | 150 | 600 | 13.9 | 55.7 |
| Non-Textured | 3 | 225 | 675 | 20.9 | 62.7 |
| | 4 | 175 | 700 | 16.3 | 65 |

*Estimate only. Coverage rates are affected by pattern density and pavement porosity. There will be less coverage with the first layer and higher coverage with subsequent layers.

**Surface build is achieved through layers.



Mixing Instructions

The following equipment has been designed specifically for optimal application of StreetBond® coatings. Other equipment may or may not be suitable and could compromise the performance of the StreetBond® coatings and/or reduce crew productivity.

Note: Airless Sprayers can not be used due to the coating's high aggregate content.

Texture Spray Equipment:

- Intech SBFlex Sprayer
- RSG 3 Spray Gun Assembly
- OR
- Graco RTX Series Texture Sprayer
- Hand Held Spray Hopper (For small jobs and accents)



Mixing Equipment

- Jiffler mixing paddle + drill



Air Compressor (Intech SBFlex Sprayer)

- Capable of supplying (minimum) 12-14 cfm / 0.3 cubic meters/ min. of continuous air at 60-80 psi. (4.0 – 5.5 atm)



8000 Watt Generator (For Mixer and/or Graco RTX1500)

- Capable of supplying 7500W
- Smaller RTX sprayers need less power, refer to sprayer manual



Masking Materials

- Duct tape
- Plastic/paper/masking board



Coating Distribution Tools

- Blue Soft Bristle Brooms
- Quickie 18" (457 mm) Bulldozer Push Broom
- Handles
- Thick nap rollers (can be used to provide texture to non-stamped surfaces)



Mixing Instructions

1. **Shake** StreetBond® Colorant (sold separately) and Part B to mix pigments and additives that may have separated during shipping and storage.
2. **Add contents** of StreetBond® Colorant and Part B to the 5- gallon/ 20 liter pail of StreetBond Part A.
3. **Add water** using the empty pint container. Fill 2x with water (2 pints/ 0.95 liter Part B); also add to Part A.

Dependent on temperature, +/- 1 pint/0.47 liters can be used. For more info, see cool and hot weather warnings.

TIP: Transfer some water to the colorant can and shake both cans to wash out remaining colorant and Part B.

WARNING: It is crucial to add no more than the recommended 2 pints / 0.47 - 1.42 liters of water. Too much water will result in coating failure, insufficient asphalt hide, and/or reduced coating life. Too little water will result in thick coating, which is difficult to apply.

4. **Mix** thoroughly, using the StreetBond® Coatings Mixer, or a Jiffler Mixing Paddle and high powered drill, for 3 minutes. Properly mixed coating will have no signs of color separation and very small amounts of aggregate settling.
5. **Strain** coating to remove unmixed clumps of material before applying.



IMPORTANT

Mixed coating containing Part A and Part B must be used within the 24 hours.

The Part B for StreetBond150 and StreetBond120 are formulated differently. Using Part B's with the wrong products can result in premature wear on the finished product.

Surface Preparation

CLEAN SURFACE:

Dirt, debris, water and contaminants sitting on the surface will affect adhesion of the StreetBond® coating. Thoroughly clean surface using a broom and backpack blower / compressed air. Where dirt and debris is severe, a power washer may be required. Areas containing chemical contaminants such as vehicle fluids need to be treated using a degreasing solution. Proper removal of contaminants and degreasing solution is necessary prior to the applying the StreetBond® coating.

Ensure that the surface is completely dry prior to applying StreetBond® coatings.



Important! StreetBond® Coatings are meant to adhere to the oils in the asphalt pavement. If there is a contaminant on the surface, it may affect adhesion.

MASKING:

Use duct tape, or other suitable tape, to mark edges of the area to be sprayed.

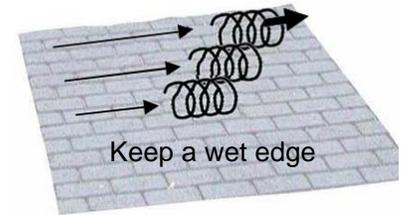
Mask off areas where coating or overspray is not wanted using plastic sheeting, tarps, coating shield, paper or other suitable product.

This will ensure sharp, aesthetically pleasing edges, and reduce overspray.



Installation

1. **Before spraying:** Make sure you understand your equipment. Operation Manuals are included with your equipment and overview videos are available online.



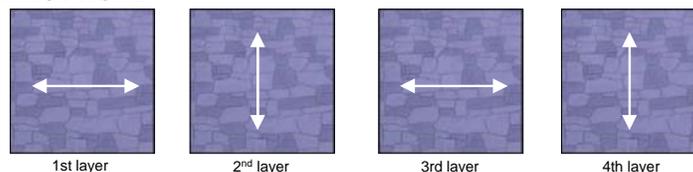
2. **Spraying:** Hold the spray gun between 24" and 32" (610-813 mm) above the asphalt surface and apply the coating using a circular movement. When applying the next transverse pass, allow for 2" (51 mm) overlap onto wet edge.

3. **Brooming:** Using an approved soft bristle broom, broom in perpendicular motions to evenly distribute coatings on the surface and to remove excess coatings from the grout lines. Broom as close as possible to the spray pass and avoid over brooming which will result in the aggregate balling on the surface and possible color variation.



Broom in different directions

4. **Spraying additional passes:** Once dry to the touch, the next layers (2,3,4) can be sprayed perpendicular to the previous layer using the same procedure. Changing spray direction for every layer will help with coating uniformity. Every additional layer of coating sprayed should be broomed or rolled, on flat work. A roller can be used to create a consistent texture which may create a more uniform texture on flat work.



Spray additional layers in different directions

Note: Properly applied coating should have a uniform texture, color and appearance with no visible working lines. Grout lines should be well defined with no excess coating.

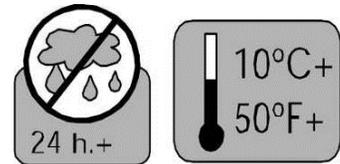


Cool Weather Warning

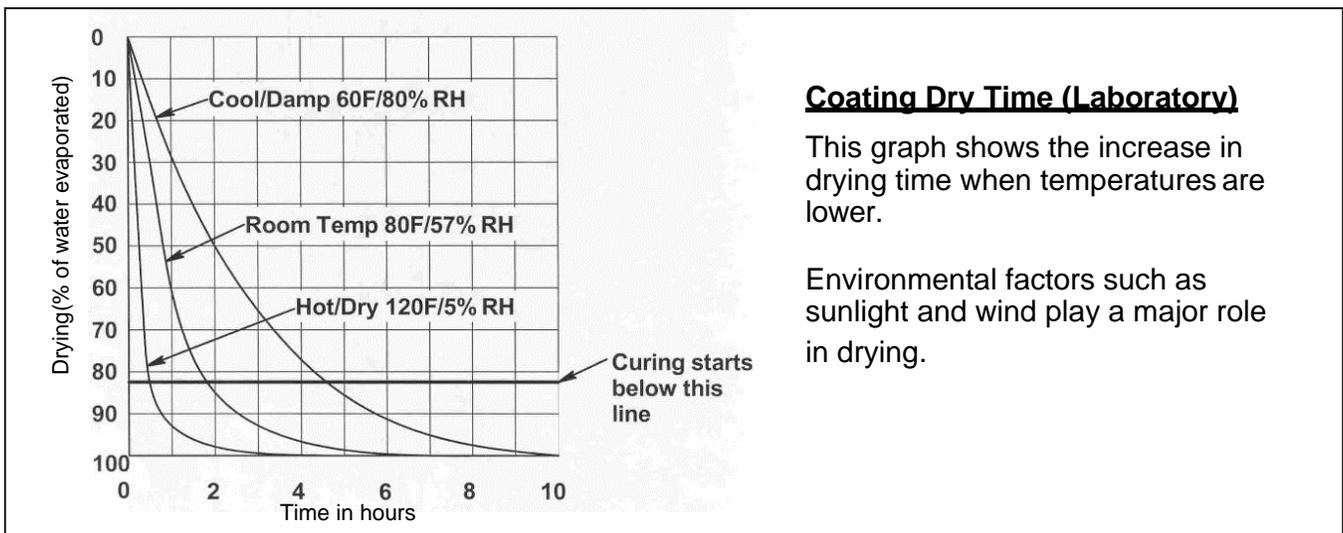
Application of StreetBond® coatings in cool temperatures will slow the rate of drying and curing which could lead to coating failures. Moisture has to evaporate from the coatings in order to dry. Only after the coatings dry will they start to cure. Shorter days, wind, shaded areas, direct sunlight, cooler temperatures, morning dew and humidity **dramatically affect dry time and performance.**

COOL WEATHER TIPS:

- Air temperature needs to be 50°F / 10°C and RISING and not drop below 50°F / 10°C for 24 hours.
- Substrate temperature needs to be 50°F / 10°C and RISING.
- Keep traffic off coating until it is completely dry.
- There should be no rain / moisture in forecast for at least 24 hrs.
- Do not apply late in day. Application of coating in the morning will allow more time to dry through day.
- Pre-heated asphalt can improve dry times.
- Air flow and gentle heat can improve dry times.
- Add the minimum amount of water, as outlined in the mixing instructions.



If StreetBond® coatings are applied when moisture cannot evaporate, then the coating will not dry. The drying and curing of StreetBond® coatings have a direct impact on performance.



StreetBond® coatings get harder with age.
The longer you wait to introduce traffic, the better it will perform.

Hot Weather Warning

StreetBond coatings need moisture evaporation to dry and cure. In hot temperatures, this may happen very quickly and can lead to a number of installation challenges if the proper steps aren't taken. High temperatures will shorten handling time of coatings.

HOT WEATHER TIPS:

- Be aware of surface temperatures. Surface temperatures over 120°F / 49°C can cause coating to flash dry and will shorten working time.
- Use ice water to increase the working time of StreetBond® coatings and help prevent blockages in the pump and hoses.
- Prime the sprayer by running ice cold water through it first. This will help the coatings to follow through the system without clogging.
- Apply coating early in the morning while it is cooler and sun is less intense.
- Keep the coating out of direct sunlight before and during mixing.
- Mix only what you can use within the next 15 minutes.
- Do not over broom coating as it will cause the coating to ball up. To prevent balling, broom only wet coating immediately behind spray pass.
- Add the maximum amount of water as outlined in the mixing instructions



Ice water keeps coating cool



Over brooming results in balling which creates a different texture

If StreetBond® coatings are applied in hot temperatures; coatings can cure extremely quickly. Take precautionary measures like those above.

StreetBond Limited Warranty

GAF warrants that StreetBond® coatings will be free from manufacturing defects that adversely affect performance for a period of one year following the completion of installation on a sound asphalt substrate, in accordance with published application instructions, as long as the StreetBond® coatings were installed during the shelf life set forth on the product label or container.

GAF's sole responsibility under the warranty is to provide replacement material for that portion of the StreetBond® coating that peels, delaminates, or shows abnormal wear, or at GAF's sole option, the cost value of said StreetBond® coating.

This Limited Warranty does not cover damages to the StreetBond® coatings resulting from anything other than an inherent manufacturing defect including:

- Faulty application or application not in strict accordance with GAF's published application instructions.
- Exposure of StreetBond® coatings to damaging substrates.
- Settlement, movement, cracks, defects or other failures of asphalt structure or surface over which the StreetBond® coatings were applied.
- Defects in design of the asphalt structure of surface over which the StreetBond® coatings were applied.
- Causes beyond normal wear and tear, such as unusual weather conditions or natural disasters.
- Impact of foreign objects or physical damage caused by any intentional or negligent acts, accidents, misuse, abuse or the like including vandalism, tire scuffing, landscaping, snow removal equipment and studded or traction tires.