## StreetBond® Brochure

(COMCO102)

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Quality You Can Trust...From North America's Largest Roofing Manufacturer!™



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## ASPHALT & CONCRETE PAVEMENT COATINGS

# gaf.com **StreetBond Coating Systems for Pavement**

#### StreetBond® Coatings are for

- crosswalks / sidewalks
- decorative streetscapes



**Bentley University** Waltham, MA



Intersection & Crosswalks Padova, Italy

#### Transformational properties - what can StreetBond<sup>®</sup> Coatings do?

- change the look & feel of a community with a coat of color
- keep cyclists safe by visually alerting drivers to the presence of a cycle lane
- enhance the open area or entrance of a campus, civic center, or park
- transform a driveway create a more welcoming
- store entrance

Elementary School Playground San Pablo, CA



extend









## this is asphalt?



## potential to transform

parking lots community areas schools / playgrounds cycle lanes / bus lanes pedestrian areas parks / plazas sport courts driveways entryways medians roads

traffic flow













## why choose asphalt?

monolithic recyclable cost effective





#### asphalt is cost effective

Asphalt is a flexible pavement material that conforms to base irregularities and can be applied thinner than concrete, saving material cost.

Additionally, asphalt doesn't require forming, is fast to install, and easy to maintain.

# Carbon Footprint

#### **50-YEAR LIFE CYCLE GREENHOUSE GAS PRODUCTION**



#### asphalt is better

than traditional decorative pavers

Pavers have limited style options and are expensive to buy, install, and maintain.

#### Pavers can cause:

heaving because of freeze/thaw and expansion/ contraction, corners can create trip hazards



asphalt





Asphalt is a flexible pavement material that can be placed as a continuous, monolithic surface without the expansion joints common with concrete or the joints associated with placing multiple units in a paver system.

cracking concrete and large slabs of stone will crack because they lack the flexibility of asphalt



## asphalt is recyclable

#### of reclaimed asphalt is recycled or reused. Asphalt pavements are America's most recycled product.<sup>1</sup>



Since it is a continuous unit, asphalt surfaces reduce trip hazards that can result from shifting pavers or concrete due to freeze/thaw cycles, base movement, or shear forces from vehicles turning, braking, or accelerating.

The seamless surface also minimizes the risk of base damage from water intrusion and does not support biological growth that can compromise the pavement's integrity.

#### () asphalt is recyclable

Asphalt is 100% recyclable and is recycled for its own use.

"Currently in North America, at least 95 percent of the asphalt pavement removed from the road is either reused in new asphalt pavements or recycled as base or shoulder material."1

Asphalt has a lower carbon footprint than concrete; "the asphalt pavement options only produce about 30% of the greenhouse gas emissions of comparable concrete pavements."1

<sup>1</sup>2010 Asphalt Pavement Alliance white paper, entitled: *Carbon* Footprint: How Does Asphalt Stack Up?





#### growth

asphalt's seamless surface does not support biological growth that can compromise a pavement's integrity



## why apply a coating?

protects cools beautifies





## coatings preserve & protect



Chemical damage

#### StreetBond<sup>®</sup> Coatings protect

StreetBond<sup>®</sup> Coatings protect asphalt from:

 UV damaae Water damage Loss of aggregates







(Above and Far Left) Research In Motion, the makers of Blackberry cell phones, converted their parking lot to cool pavement that gualified for LEED® points using StreetBond® SB150 Pavement Coating with SR Slate Colorant. The SR Colorant uses special technology to provide solar reflectivity even though it is a darker slate color.

## StreetBond<sup>®</sup> Coatings beautify

Adding color and design to paved surfaces improves the aesthetics of urban environments. The project shown to the right was initiated by the NYC Transportation Commission and the Times Square Alliance to make the area more pedestrian friendly. To convert asphalt streets into pedestrian areas, they simply changed the color of the surface and added a design using StreetBond® SB150 Pavement Coating.



Times Square, New York City

#### **()** Bonded asphalt is better

Bonded asphalt is conventional asphalt with a renewable top layer of high-quality coating that reinforces the surface, binding the aggregate fines, resisting water penetration, and protecting the asphalt from the effects of UV degradation and chemicals.

Bonded asphalt can also provide solar reflectivity to cool the surface; it has a longer useful life than conventional asphalt, thereby reducing life cycle cost.

UV and water exposure cause asphalt to prematurely age, causing a loss in flexibility and resulting in cracking and raveling (loss of aggregates). Cracked asphalt exposes the base to water, which can result in structural failure.

## solar reflective pavement

#### StreetBond<sup>®</sup> Coatings cool

Extreme heat is currently the leading cause of weatherrelated deaths in the United States. According to the Arizona Department of Health Services, a 5°F (2.7°C) reduction in the ambient temperature can result in a 14°F to 23°F (8-13°C) reduction in the heat index (depending on humidity levels).

Asphalt surfaces coated with a solar reflective coating are significantly cooler. StreetBond® SB150 Pavement Coating with a SR (solar reflective) Colorant keeps asphalt cool, delaying the aging and degradation process and creating a safer, more comfortable environment.

#### **Urban Heat** Island Effect

Urban heat islands are urban areas where the temperature is higher than the surrounding rural areas. Why? Typical darkcolored pavements and rooftops absorb more heat than they emit during the day. The increased energy requirement and cost for air conditioning can directly affect the temperature difference between the building's interior and exterior.

Dependent on several factors, an average of 33% of the cooling portion of an energy bill may be saved if the external temperature can be reduced by 10°F (6°C).

## premium coating characteristics

## why do **StreetBond**<sup>®</sup> Coatings fit in your environment?

safer for the environment

solar reflective

skid resistant

renews & repairs





StreetBond<sup>®</sup> is solar reflective

StreetBond<sup>®</sup> Coatings combined with SR (solar reflective)

Colorants reduce the temperature of asphalt surfaces. With

cooler hardscape surfaces, surrounding buildings typically

see lower air conditioning costs and improved air quality.

environments, keeping the asphalt cooler extends the life

of the asphalt itself and reduces the possibility of rutting or

In addition to providing more comfortable urban

With an SRI value of 29+, the coated asphalt parking lot produces less CO, and typically costs 25% less than concrete to install.



## StreetBond® is skid resistant

Unlike some coatings that rely on polishing for their durability, StreetBond® Coatings incorporate carefully selected aggregates to provide superior slip and skid resistance, both initially and over time, making StreetBond®-coated surfaces safer for foot and vehicle traffic. StreetBond® Coatings are also fully compliant with the Americans with Disabilities Act (ADA).

(above) a "locked-wheel test" in progress, testing friction coefficients for products to be used in roadways.



asphalt parking lot was

StreetBond<sup>®</sup> renews & repairs

StreetBond® Coatings are designed with renewability in mind. They can be applied to new asphalt, or can be used to renew existing asphalt areas.

StreetBond® Coatings use acrylic-based technology that has excellent self-adhesion properties, meaning they can be reapplied to renew and refresh the surface and re-establish the protective weather barrier.



ravelina.

StreetBond<sup>®</sup> SR Colorants can contribute to LEED® points

SRI (Solar Reflective Index) The measure of a material's ability to reflect solar heat

SRI 0 SRI 29 (Black) (Minimum for LEED<sup>®</sup> point) SRI 100 (White)



LEED<sup>®</sup> is a rating program developed by the United States Green Building Council (USGBC) USGBC® and the related loao are trademarks owned by the U.S. Green Buildina Council and are used with permission

An existing revitalized at Bucket Head Tavern in Knoxville, TN.

Worker friendly



Ecologically friendly

Neighborhood friendly





StreetBond<sup>®</sup> uses water-based technology that is safe and easy for workers doing the application and requires no special safety gear



As water-based acrylics, StreetBond<sup>®</sup> Coatings products have very low VOC levels, which are safer for the environment than solvent-based coatings or coatings that require solvents for cleanup.



Producing no foul odors and no toxic residue, and creating minimal neighborhood disruption.

## premium coating characteristics

## what makes StreetBond® Coatings last?



## proven durability

on Beale Street in Memphis, TN

Beale Street in Memphis, TN was coated in StreetBond® SB150 Pavement Coating's Burnt Sienna ten years ago. The original asphalt was still in great condition as seen on the left side of the road, and simply needed a recoat in 2011, as seen on the right.

StreetBond® Coating protected the street and the only maintenance was to recoat. The acrylic properties of StreetBond® Coating allow it to bind to itself easily.



## StreetBond<sup>®</sup> is color stable

StreetBond®'s advanced acrylic polymer technology provides superior color stability compared with other technologies such as epoxies. Acrylics are non-yellowing and have good self-cleaning characteristics.

StreetBond<sup>®</sup> Coatings use the highest-quality pigments to inhibit fading caused by the sun's ultraviolet rays. Cheaper organic pigments can provide acceptable initial color but may fade, resulting in color change and loss of vibrancy.



## StreetBond<sup>®</sup> is flexible

Unlike many coatings, especially coatings that derive their durability from hardness, StreetBond® Coatings are designed to conform to the normal expansion and contraction of asphalt surfaces and will not peel, delaminate, shrink, or crack. Harder, less flexible coatings that crack are unsightly and may accelerate asphalt damage.



## StreetBond<sup>®</sup> is **recoatable**

StreetBond<sup>®</sup> Coatings are designed with renewability in mind. Acrylic-based products are breathable, which inhibits delamination and helps the coating retain excellent adhesion. As a result, wear happens from the top down, keeping the base layer intact.

Combined with excellent self-adhesion properties, StreetBond® Coatings can be reapplied to renew and refresh the surface and re-establish the protective weather barrier.





Chemical resistant

Performance achieved through layers



StreetBond® after 12 years in Padua Via Dupre, Italy

Premium StreetBond® Coatings are built from an epoxy-modified acrylic formula that is specifically designed to meet traffic demands, even in wet conditions, by limiting the softening effect that water has on traditional water-based coatings.

MEK immersion test (L) typical coating dissolved; (R) StreetBond® remains intact

StreetBond® Coatings are resistant to damage and deterioration when exposed to fuel, engine oil, and deicing agents.



Long-term, durable performance is achieved through layers; where extra durability is required, additional layers of StreetBond® Coating can be applied.

## best-in-class products

## our products

### premium coatings parking lot protection substrate preparation



## What is the StreetBond<sup>®</sup> Premium System?

The StreetBond® Premium System is composed of several layers of coating, each layer contributing to the overall performance of the System.

> Premium System: StreetBond® SB150 • StreetBond® SB150 • FrictionCoat layer • StreetBond® SB150 • asphalt surface •





(above) Completed Premium System applied to an imprinted asphalt surface

## Coating Selection Guide

Purpose	Application	Asphalt Substrate	Concrete Substrate
Protective Coating	Vehicular & Pedestrian	StreetBond <sup>®</sup> SB150 Pavement Coating	StreetBond <sup>®</sup> SB150 Pavement Coating
	Heavier Vehicular Traffic	StreetBond <sup>®</sup> Premium System	StreetBond <sup>®</sup> Premium System
	Pedestrian & Light Vehicular Traffic	StreetBond <sup>®</sup> SB150 Pavement Coating	StreetBond <sup>®</sup> SB150 Pavement Coating
	Pedestrian Traffic	StreetBond <sup>®</sup> SB120 Pavement Coating	StreetBond <sup>®</sup> SB120 Pavement Coating
	Asphalt Preservation & Protection	StreetBond <sup>®</sup> DuraShield Pavement Coating	•

Substrate Preparation	New Concrete*, Spalled Concrete, Exposed Aggregate Concrete (Polished Stone)	•	StreetBond <sup>®</sup> QS or WB Concrete Primer
	Exposed Aggregate Polished Asphalt	StreetBond <sup>®</sup> Adhesion Promoter Concentrate	•

#### Note: No primer is required with newly installed stable asphalt.

\*It is required that new concrete be etched prior to primer application for adhesion and it is highly recommended that aged concrete is also etched prior to primer application.

#### DuraShield:

revolutionary parking lot protection

StreetBond<sup>®</sup> DuraShield Pavement Coating is designed to enhance the appearance of asphalt surfaces and to protect the asphalt from degradation due to oxidation from exposure to UV rays and water. It also covers minor surface cracks and imperfections.

StreetBond<sup>®</sup> DuraShield Pavement Coating contains 100% acrylic polymer as opposed to traditional seal coat products, which are mostly coal-tar emulsions. Therefore, the wear properties of StreetBond<sup>®</sup> DuraShield are far superior to traditional asphalt emulsion seal coat products.

StreetBond<sup>®</sup> DuraShield Pavement Coating resists wear yet remains flexible to movement with an asphalt substrate without cracking. StreetBond<sup>®</sup> DuraShield can be combined with StreetBond<sup>®</sup> SB150 Pavement Coating to provide a comprehensive parking lot solution that satisfies the variety of performance requirements found in parking lots.



# why choose GAF?

# GAF's

**technology** GAF technology and experience is broad, reaching beyond a narrow focus on one particular industry or application. Our expertise and the lessons we learn in the lab are shared across brands, resulting in leadership products, primers, and innovation you won't get from a company that only deals with pavement coatings.

support In addition, we offer international technical support. We have technical representatives located worldwide to help on the job site and to provide hands-on training.

We stand behind our products and ensure they are of the highest quality. When applied by Accredited StreetBond® Applicators, GAF is guarantees are available up to 5 years\*.

reliable Founded in 1886, GAF is proud to be North America's largest roofing manufacturer. As the industry leader with over \$3 billion in sales, GAF proudly offers a comprehensive portfolio of award-winning, innovative roofing products. GAF stands behind its products, its people, and its warranties. We have extensive facilities conveniently located across the United States to serve you better—so you can expect quick order fulfillment and a reliable supply.

\*See gaf.com for StreetBond® warranty information



## support certifications warranties





## gaf.com is a powerful tool

We offer case studies to provide real life examples of companies and communities that have used StreetBond<sup>®</sup> Coatings with success. We also publish all of our technical data sheets, specifications, SDS, and marketing materials online in downloadable PDF format.

Visit gaf.com today for complete information on StreetBond® Coatings and all our innovative commercial roofing products.

## innovative & experienced





GAF's support doesn't end when you're awarded the job. With a worldwide team of sales and technical representatives, GAF is one GAF'S of the only companies in the industry that offers in-field support.

# only warranty of its **kind**



**ISO** standards are internationally recognized quality management systems with the basic philosophy of providing a consistent product while monitoring its performance and striving for continual improvement.

GAF is one of the few manufacturers in our industry to possess both ISO 9001 and 14001 certifications.



ISO 9001:2008 ISO 14001:2004

## parking lot solutions right product, right place



- High-performance coating for flat or
- imprinted pavement surfaces
- Long lasting, durable, and recoatable

#### StreetBond<sup>®</sup> Premium System

- Added friction aggregates for high vehicular traffic areas
- Layer-based system designed to perform under extreme wear conditions

#### StreetBond<sup>®</sup> DuraShield Pavement Coating

- Economically priced
- Repairs imperfections in existing asphalt
- An alternative to coal tar-based asphalt emulsions that is safer for the environment





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