



TESTAROSSO®

ALUMINUM FLAKE®



Modified Bitumen Waterproofing Membrane **Temperature reducer**

Ultra Reflective

Unique with **ALUMINUM FLAKE**



PATENT
Pending

TESTAROSSO®

ALUMINUM FLAKE®

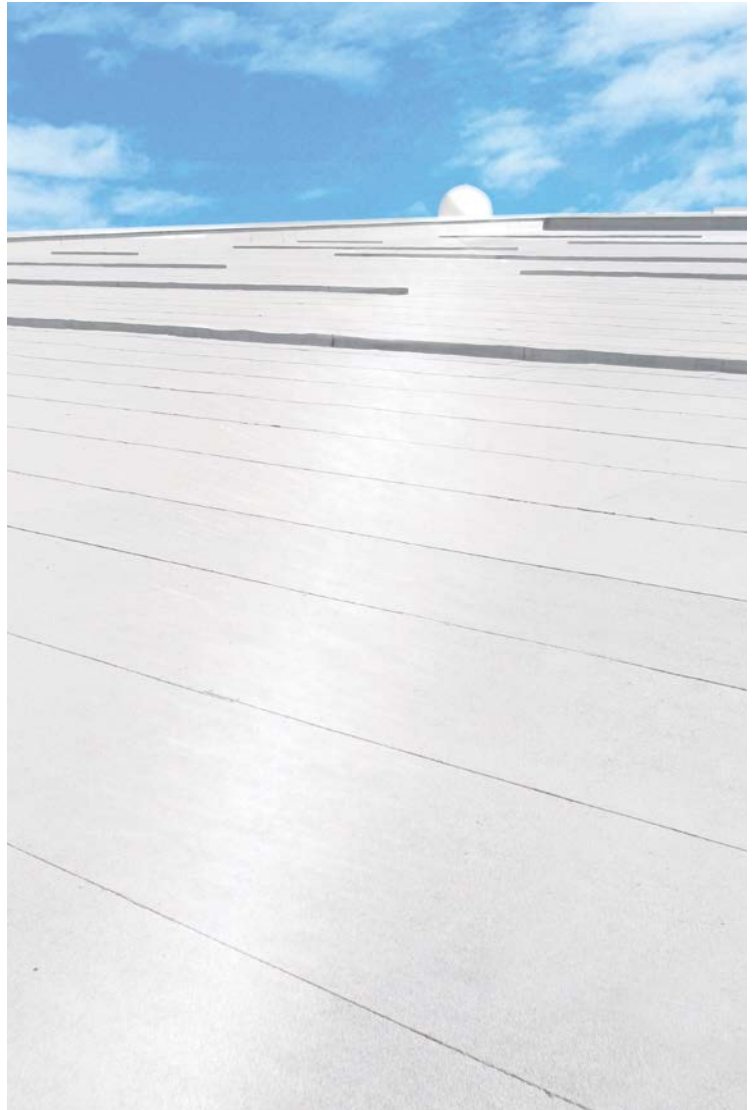
CURACRETO® founded in 1950 an ISO 9001 : 2015 Certified Company is a leading manufacturer of top quality roofing membranes and construction materials.

We have developed a new product called **Testarosso Aluminum Flake®**. This unique cap sheet is unlike any other on the market today. Our premium roll is comprised of a spunbond polyester mat with SBS modified bitumen asphalt. Each roll is embedded with 60 million aluminum flakes which reduces by more than 50% the heat transmission generated by the sun's ultraviolet and infrared rays towards the building's interior. **Testarosso Aluminum Flake®** has an 87 Solar Reflectance Index (SRI) and is rated by the CRRC.

Our premium roll with an overall thickness of 160 mils has 30% more SBS modified bitumen than granulated rolls. This is due to the comparative thickness of the granulated surface versus the aluminum flake surface. This additional modified SBS asphalt gives the membrane a much longer life cycle.

Testarosso Aluminum Flake® integrates a new vision of sustainability, functionality and optimization of energy resources. Its low thermal emissivity combats the Heat Island Effect by generating a cooler and more comfortable environment inside the building thus contributing to a decrease in energy consumption resulting in extended life span of the air conditioning systems. This specific property of the **Testarosso Aluminum Flake®** qualifies the product for the acquisition of LEED credits. (Leadership in Energy and Environmental Design) certification of the US Green Building Council, an organization that promotes sustainability in the design, construction and operation of buildings.

By having a daytime temperature gradient of less than 30°F from 65°F to 95°F, compared to different colors of roofing membrane granules, which have a 102°F gradient of 65°F to 167°F, this physical property increases its useful life by 30%, which results in valuable savings due to its longer duration. In addition, the heat transmitted to the interior of the building is reduced considerably.





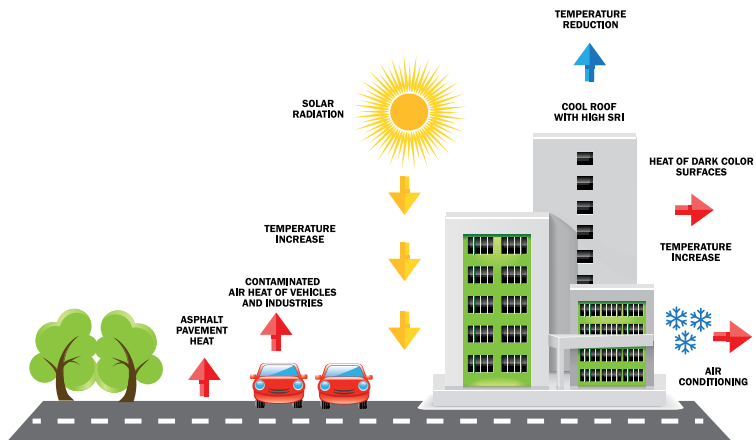
Testarosso Aluminum Flake® has been certified complying with International Standards:

- ASTM C1549-09 Determination of Solar Reflectance
- ASTM E 1980-01 Solar Reflectance Index (SRI)
- ASTM C1371-04^a Determination of Thermal Emittance

THERMAL EMITTANCE

Portion of heat (thermal radiation) emitted by an object due to its temperature.

SOLAR REFLECTANCE INDEX

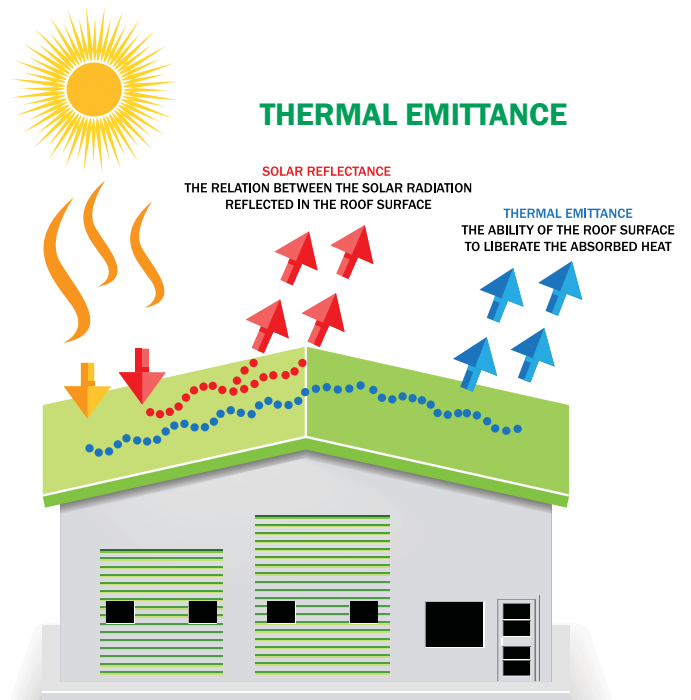


Graphic 1

Graphic 1

Testarosso Aluminum Flake® has an SRI of 87.

THERMAL EMITTANCE



Graphic 2

Graphic 2

Testarosso Aluminum Flake® has a Thermal Emittance of 0.19 where 1 is assigned to black color objects.

Testarosso Aluminum Flake® has an Underwriters Laboratories UL 790 Class “A” Certification, as well meets the ASTM D6164 Type 1 Grade G test and was tested in accordance with Miami Dade County test protocol for High Velocity Hurricane Zones (HVHZ)-TAS 114-95 “D” (Wind Uplift) for issuance of a Notice of Acceptance (NOA).

ADVANTAGES OF Testarosso Aluminum Flake®

- ✔ Coating: covered with more than 60 million aluminum flakes per 1 square roll.
- ✔ Highly reflective with 87 SRI.
- ✔ Reduces heat transmission to the interior of the property.
- ✔ Waterproofing from the moment it is applied.
- ✔ It has a temperature differential of up to 72°F compared to other waterproofing roofing rolls coated with traditional granule colors.
- ✔ Reinforced with Spunbond polyester mat.
- ✔ It produces a saving of energy consumption in cooling systems.
- ✔ Combats the Heat Island Effect, being friendly to the environment.
- ✔ It favors obtaining **LEED** points.
- ✔ Manufactured in 2 types FR (Flame Retardant) or NFR (Non Flame Retardant) both types have an Underwriters Laboratories UL 790 Class “A” Certification

INSTALLATION OF Testarosso Aluminum Flake®

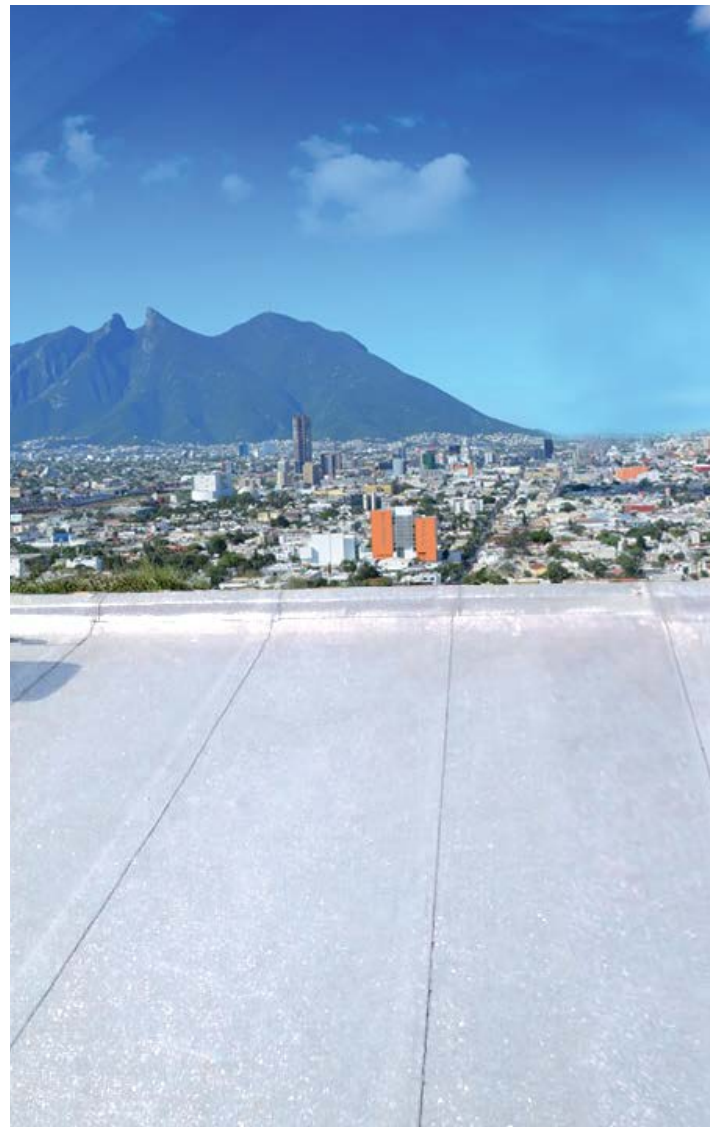
Like the rest of our SBS modified membranes, the surface to which **Testarosso Aluminum Flake®** is applied must be dry, clean and free of any particles that could affect its adhesion.

It can be installed over our different roofing membrane base sheets reinforced with fiber glass or Spunbond polyester mats, torched or mechanically fastened to the surface.

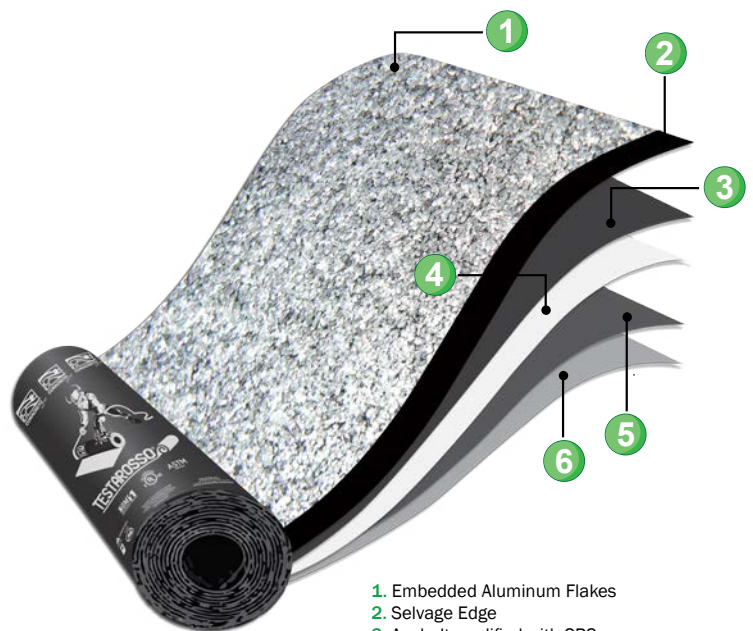
Product	Reinforcement	Thickness (mm) (mils)	Coating
Testarosso Aluminum Flake SBS SP 300	Polyester 180 g/m ² 3.9 lb/100 ft ²	3.0 120	Aluminum Flakes*
Testarosso Aluminum Flake SBS SP 350	Polyester 180 g/m ² 3.9 lb/100 ft ²	3.5 140	Aluminum Flakes*
Testarosso Aluminum Flake SBS SP 400	Polyester 180 g/m ² 3.9 lb/100 ft ²	4.0 160	Aluminum Flakes*
Testarosso Aluminum Flake SBS SP 450	Polyester 180 g/m ² 3.9 lb/100 ft ²	4.5 180	Aluminum Flakes**

Roll of 1.0 x 10.0 m*
Roll of 39.4" by 32.8 ft **

Roll of 1.0 x 9.0 m**
Roll of 39.4" by 29.5 ft **



TESTAROSSO ALUMINUM FLAKE®



1. Embedded Aluminum Flakes
2. Selvage Edge
3. Asphalt modified with SBS
4. Non-woven Spunbond polyester mat
5. Asphalt modified with SBS
6. Torchable polyethylene film

BASE SHEETS

In order to provide a long lasting or long-term roofing system, it is beneficial to install a base sheet creating a multiply or a two-ply roof system. A two-ply roof system allows for redundancy in the system and reduces the possibility of blistering and delamination from the substrate. Based on the substrate type, a mechanically fastened base sheet allows for lateral movement of moisture or vapor and a fully adhered base sheet acts as a vapor barrier and also as a second layer of waterproofing. This two-ply roof system can be installed by torch application, mopping in hot asphalt or by mechanical attachment.

We manufacture several types of SBS modified bitumen base sheets they are reinforced with Nonwoven Fiber Glass 90 g/m² (1.85 lb/100 ft²) or Spunbond Polyester mat 180 g/m² (3.9 lb/100 ft²).



They should be installed by fully heat torching, mopping or mechanically fastened to an appropriate clean surface, the use of a Primer coating is recommended.

PRODUCT ADVANTAGE

Multi-Functional **Testarosso Base Sheet** can be used in conjunction with Curacreto's liquid waterproofing products.

They can also be used with **TESTAROSSO** modified bitumen waterproofing rolls as a multi-ply BUR, and as the underlayment for Curacreto's high-performance roofing systems or as a base flashing ply for hot and cold applied roof systems.

ADVANCED SBS RUBBER TECHNOLOGY

The modifier utilized in **Testarosso SBS Sanded Base Sheet** is SBS (Styrene-Butadiene-Styrene). When the SBS rubber is properly dispersed throughout the high penetration asphalt, the rubber provides increased thermal shock resistance, UV protection, heat resistance, elongation, and low temperature flexibility. To ensure a proper dispersion, a special high shear mixer is used in manufacturing.

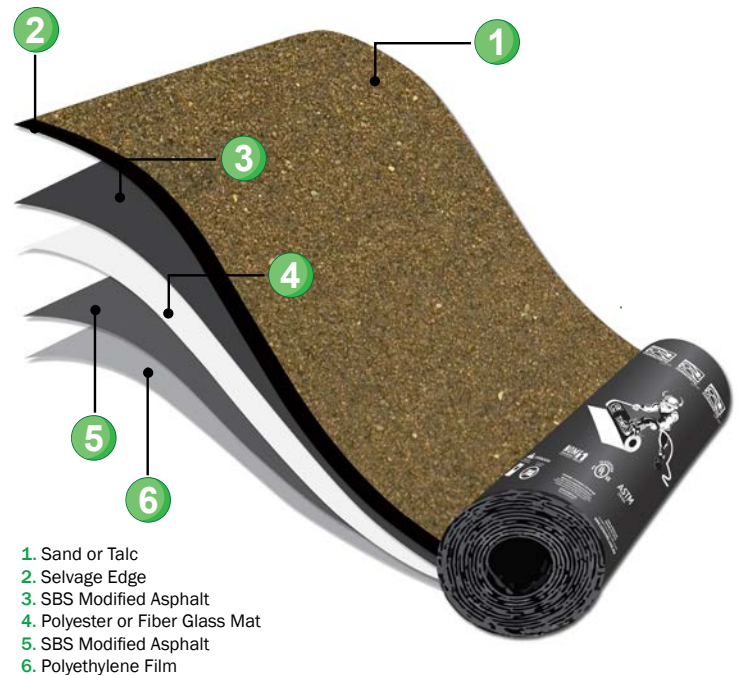
Designed for today's more demanding roof needs.

TESTAROSSO BASE SHEETS

Are a high-strength, puncture and fatigue resistant, SBS modified roofing membranes designed for use as the waterproofing and reinforcement layer of a built-up or modified roofing system.

SBS modified bitumen membranes reinforced with Spunbond polyester or Fiberglass mat reinforcement.

PRODUCT SPECIFICATION



Product	Reinforcement	Thickness (mm) (mils)	ROLL Length	ROLL Width	ROLL Coverage
Testarosso SBS BFG 140 S	Fiber Glass 90 g/m ² 1.85 lb/100 ft ²	1.4 55	30 m 98.4 ft	1 m 39.4"	27 m ² 3 sq
Testarosso SBS BFG 220 S	Fiber Glass 90 g/m ² 1.85 lb/100 ft ²	2.2 88	15 m 49.2 ft	1 m 39.4"	13.5 m ² 1.5 sq
Testarosso SBS BFG 300 S	Fiber Glass 90 g/m ² 1.85 lb/100 ft ²	3.0 120	10 m 32.81 ft	1 m 39.4"	9 m ² 1 sq
Testarosso SBS BP 300 S	Polyester 180 g/m ² 3.9 lb/100 ft ²	3.0 120	10 m 32.81 ft	1 m 39.4"	9 m ² 1 sq
Testarosso SBS BP 400 S	Polyester 180 g/m ² 3.9 lb/100 ft ²	4.0 160	10 m 32.81 ft	1 m 39.4"	9 m ² 1 sq

Testarosso Aluminum Flake® Vs Roofing Membranes Coated with Conventional Ceramic Granulated Colors

The temperatures seen in the thermometers correspond to roofs with modified membranes coated with roofing granules in several commercial colors. **Testarosso Aluminum Flake®** membrane has a much lower temperature increase during the day compared to the other membranes coated with colored granules, because of its 87 SRI compared to less than 20 SRI of the other colored coatings this is directly reflected in the temperature in the roof of the building, generating a decrease in the consumption of energy in air conditioning equipment.

Testarosso
Aluminum Flake
17.9 to 34.6°C
64.2 to 93.3°F



Roofing membrane
White Granules Coating
17.9 to 53.8°C
64.2 to 128.8°F



Roofing membrane
Red Granules Coating
17.9 to 61.1°C
64.2 to 142.0°F



Roofing membrane
Green Granules Coating
17.9 to 61.9°C
64.2 to 143.4°F



Measurements taken in Houston, TX on the month of May

Product	9:00 AM Initial Surface Temperature (IT)	9:15 AM	10:00 AM	11:00 AM	12:00 PM	13:00 PM	14:00 PM	15:00 PM Final Surface Temperature (FT)	Gradient between (IT-FT)
Testarosso Aluminum Flake	°17.9C °64.2F	°18.1C °64.6F	°19.2C °66.7F	°21.3C °70.4F	°25.4C °77.7F	°28.3C °82.9F	°30.5C °86.9F	°34.6C °94.3F	°16.7C °30.1F
Roofing Membrane with White Granules	°17.9C °64.2F	°22.7C °72.9F	°31.1C °88.0F	°36.9C °98.4F	°41.3C °106.3F	°46.8C °116.2F	°50.3C °122.5F	°53.8C °128.8F	°35.9C °64.6F
Roofing Membrane with Red Granules	°17.9C °64.2F	°22.8C °73.0F	°32.6C °90.7F	°40.3C °104.5F	°46.9C °116.4F	°52.3C °126.1F	°55.0C °131.0F	°61.1C °142.0F	°43.2C °77.8F
Roofing Membrane with Green Granules	°17.9C °64.2F	°24.8C °76.6F	°33.6C °92.5F	°45.3C °113.5F	°50.1C °122.2F	°54.5C °130.1F	°60.4C °140.7F	°61.9C °143.4F	°44.0C °79.2F

What can be observed is that the roofing membranes with colored granules absorb infrared (IR) and ultraviolet (UV) rays, drastically increasing the temperature of the roofing membrane, as well as the temperature of the roofs where they were installed, thus reducing their life span.