

# ALUMINUM ROOF COATINGS TECHNICAL BULLETIN



BULLDOG quality asphalt based aluminum pigmented roof maintenance coatings are typically used to protect and prolong the roof surface to which these coatings are applied as well as to remove heat from the roof surface to lower cooling costs. These coatings extend the life of the roof surfaces to which they are applied by repelling the harmful effects of the sun's ultra violet rays.

## **PRODUCT TYPES**

BULLDOG aluminum coatings are offered in both fibered and non-fibered formulations. Typically, fibered aluminum roof coatings are applied to aged roofs that are beginning to alligator and show signs of wear. The fiber content of this product creates a more viscous product that imparts waterproofing integrity. Non-fibered aluminum coatings are applied to substrates that are in good condition or may have been previously aluminum coated. This material has a paint like consistency. Both coatings are utilized to protect the roof surface and reflect heat off the roof.

## **FORMULATION INFORMATION**

BULLDOG aluminum coatings are manufactured with a high mental content aluminum paste (pigment), low odor solvents and additional high quality raw materials. BULLDOG aluminum coatings exceed the American Society for Testing and Materials (ASTM) specifications as well as exceeding the US Department of Energy's Energy Star requirements.

## **HOW THE COATING IS ENGINEERED**

Aluminum coatings are required to be stirred prior to use. The weight of the aluminum pigment cannot stay suspended in the asphalt. When the product is stirred it looks bronze in color. As the sun hits the coating and the solvents begin to evaporate they draw the aluminum paste (flakes) to the surface of the coating. This process is known as the leafing process. These tiny particles of aluminum rise to the top as the coating sets to form a metalized armor that is permanently bonded to the roof surface by the asphalt.

## **WHAT TO WATCH OUT FOR**

Coatings that utilize low cost and often non-environmentally friendly solvents may shine very bright on initial application. These solvents are known as non-rule solvents that can increase ground level ozone. However, after a relatively short period of time, typically anywhere from several hours to days, the coating will fade. This is due to the fact that the coating has cured so rapidly that the aluminum flakes are pulled out of the coating and the black asphalt overwhelms what remains in the coating. This can cause the coating to appear streaky gray/black.

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## **THE BULLDOG DIFFERENCE**

BULLDOG Aluminum Roof Coatings are manufactured with what is known as Rule 66, non-photochemically reactive solvents. These are very mild solvents that assist in transporting the aluminum flakes to the surface of the coating to yield a uniform, highly reflective coating. BULLDOG contains a high pigment load. Essentially, if you were to peel our coating off the roof it would be aluminum in color on both the surface and on the underside. Less expensive aluminum coatings will only have an appearance of aluminum gray color on the surface. This heavy pigment loading adds to the long reflectivity of the product and extends its useful service life.

## **LOW ODOR**

While all products have some type of odor BULLDOG does its best to mitigate the cause of complaints by either applicators or building occupants by utilizing low odor solvents.

## **TYPICAL SERVICE LIFE**

The normal expected service life of BULLDOG aluminum coatings is 5-7 years. In many instances customers have reported that the life of their coating jobs have exceeded their expectations. Aluminum coatings are not designed to be applied to surfaces that pond water. There is the strong possibility that aluminum coatings will delaminate under ponding water conditions. BULLDOG Aluminum coatings can be recoated after proper surface preparation has taken place.

## **HEAT REFLECTIVITY AND HEAT RETENTION**

BULLDOG aluminum coatings repel the sun's rays and thus take heat off the roof and will reduce under roof temperatures by up to 15F during periods of high temperature. In colder seasons the aluminum coating will actually retain some heat thus assisting the building envelope in gaining heat retention in the time of the year when it is needed most. Aluminum coatings are the optimal product to use for heat reflection in the summer and heat retention in the winter.

## **TYPICAL USES**

Among the billions of square feet of low slop roofs cover with BULLDOG aluminum coatings are industrial parks, manufacturing facility roofs often having roof surfaces of 300,000 square feet, municipalities, universities, etc.

## **THE BULLDOG DIFFERENCE**

Like many products or services, all aluminum coatings are not created equal. BULLDOG coatings are industry wide recognized for their superior reflectivity and long life. Our use of the highest metal content aluminum pigments, low odor solvents, consistent sourced oxidized asphalt are just a few of the many reasons why BULLDOG is the choice for quality among roofing contractors, building owners, property managers and specifiers.

## **WHY CHOOSE BULLDOG**

BULLDOG is the preferred choice for knowledgeable roofing professionals who want a high quality, low life cycle cost product that they can use with confidence year after year.

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