

PROTECTED BY

 PRIMAR®

## DESCRIPTION

The standard textured finishes from HessAmerica are one of the visible quality features common to many painted luminaires and poles within our product portfolio. Known as Primar, this protective coating has been used around the world with great success for over one hundred years. Notable installations protected with this coating include the Eiffel Tower in Paris, the Sydney Harbor Bridge in Australia, and Big Ben in London. Although more commonly used in Europe, the finish is used in environments where long-term corrosion protection is critical, such as off-shore platforms, refineries, bridges, and electrical transmission towers. The benefits and performance attributes of this wet-applied finish make for an excellent specification feature.

The base material of the paint is a mined mineral that has a flaky, plate-like structure similar to mica. This inert material is insoluble in water, organic solvents, and alkalis; is un-reactive to most chemicals; and is heat stable up to its melting point of over 1000°C (2700°F). Primar is non-toxic, non-oxidizing, non-corrosive, and non-flammable. As a result of these environmental characteristics, paint formulators world-wide have long considered this type of coating to be their primary choice in their arsenal of anti-corrosive protective finishes.

## BARRIER PROTECTION

The plate-like structures or flakes of Primar align parallel to the surface when applied to the substrate, forming an armor-like layered shield similar to fish scales or roofing tiles. This alignment is key to providing enhanced barrier protection, ultraviolet light absorption, paint film reinforcement, and increased intercoat adhesion.

This tendency of the Primar particles to align parallel to the surface produces a barrier effect. The overlapping particles form a protective shield around the substrate that prevents the intrusion of moisture, organic solvents, and alkalis.

Primar is impervious to UV radiation. This quality, combined with the layered structure of the material, protects the surface of the binder system in the coating from UV degradation and other weathering elements, giving this finish a service life of approximately twenty years. While this “built-in” protection ensures longevity of the paint surface for the long-term, other finishing techniques such as powder coating may exhibit signs of chalking or fading under extreme conditions of ultraviolet exposure that are commonly found in many southern regions of North America.

The use of Primar toughens and strengthens the coating, leading to greatly improved performance against blistering and increased substrate adhesion. The micro texture formed by the lamellar flakes creates a surface profile that allows for better adhesion between coats when the coating is dry.

Since the majority of the Primar coating is composed of a metallic mineral and oxygen (over 65%), it has a coefficient of expansion similar to the metal substrate that it is protecting. This minimizes the possibility of cracking, flexing, or lifting of the paint from the surface, such as in extreme conditions of heat or cold.

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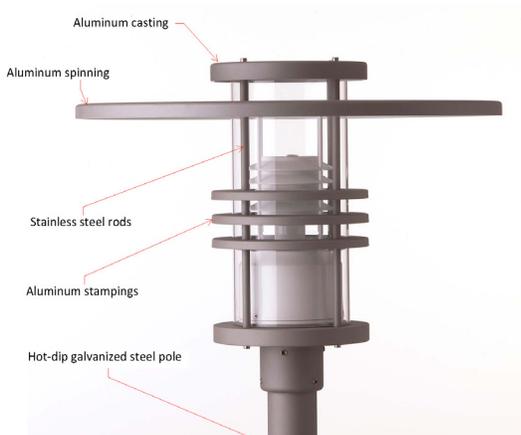


COLOR PALETTE

The flat surfaces of the Primar particles act like mirrors, giving the applied coating a metallic luster with a satin surface finish. The mineral is typically grey in color, so finishes will be limited to darker colors such as our standard offerings of matte silver grey metallic, dark grey, graphite grey, matte bronze, or matte black.

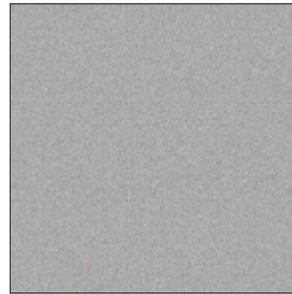
Primar coatings provide benefits that are often difficult to achieve with alternative finishing techniques. In the case of HessAmerica luminaires and poles, the wet-applied technique of Primar is used for both, thus ensuring a match in finishes between the two components. This can be problematic when employing other finishing techniques, particularly with taller poles, which may not fit in paint booths or other equipment required for powder coating or electro coating.

Primar also masks the substrate, architecturally enhancing the appearance of the finished product. Using the Avalon 650 post-top luminaire shown below as an example, we see several base materials in use, such as an aluminum spinning for the shade, aluminum casting for the luminaire top and base, stainless steel rods for the vertical supports, and the hot-dip galvanized pole. Each of these materials is quite different in surface detailing when viewed in their raw form, yet they all take on the same finished appearance after painting and assembly.



*The Avalon 650 uses aluminum and steel in several forms; the base materials do not telegraph through the finish, providing an excellent architectural presentation.*

For exact color matching, please request a physical paint chip sample from our factory.



Matte Silver



Dark Grey



Graphite Grey



Matte Bronze



Matte Black