

Alesta® Cool

Black is just as Cool as white.

Every colour reflects heat differently. The colour of a coating is determined by its radiance coefficient and the infrared absorption coefficient: the solar reflection.

Approximately 50% of solar energy reaching the surface of the Earth consists of infrared radiation. This invisible light raises the temperature of the object exposed to it. Dark colours absorb radiation more strongly than light colours. The temperature increase of light colours exposed to the sun is thus lower than that of darker colours.

Alesta® Cool improves the infrared reflection and reduces the surface temperature of the coated surface. With Alesta® Cool, the total solar reflection for dark colours can be increased by up to 20%. This technical innovation reduces the heat transfer to the metal.

A reduction in the temperature differences experienced by the object lowers the mechanical stress imposed on the metal and thus improves colour stability, the gloss retention and the mechanical properties of the coating.

In architecture, temperature reduction of coated surfaces helps to lower the energy consumption for Cooling of the building. This saves energy and helps the environment.

Even a thin coating can improve reflectivity considerably. Alesta® Cool formulations can reduce the surface temperature by 20%.

A special range of 12 colours with improved reflectivity has already been formulated. The new Alesta® Cool range is available for all types of coatings: from high-gloss to matt, from smooth to fine textured.

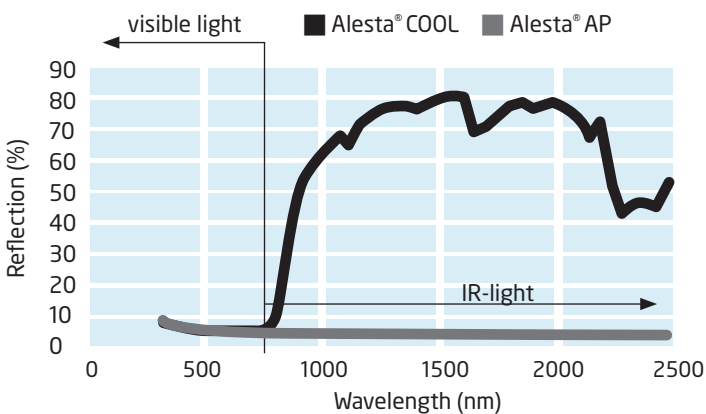


Our goal is applications in architecture and the building industry, for example roofs, cladding boards, sun blinds, outdoor furniture and similar items used or installed outdoors. Alesta® Cool can also be used in the transport industry when it makes sense to reduce the heat, for example on animal transport trailers and agricultural machines.

Highlights

- Polyester-based powder coating
- Can improve the TSR value and reduce the surface temperature by up to 20%
- Black RAL 9005 Alesta® Cool behaves just like a white RAL 9010 standard product
- Reduces the need for air conditioning systems
- Can be applied like any other powder coating
- Excellent colour and gloss stability
- Excellent mechanical properties
- Qualicoat and GSB approvals
- Colour range:
 - RAL 3005 smooth gloss - RAL 5004 smooth gloss
 - RAL 5011 fine textured - RAL 5013 smooth matt
 - RAL 6005 smooth semi gloss - RAL 6009 fine textured
 - RAL 7016 smooth gloss - RAL 7021 smooth semi gloss
 - RAL 7026 fine textured - RAL 8017 smooth semi gloss
 - RAL 9005 smooth matt - RAL 9007 smooth gloss

Measurement of reflectivity of RAL 9005



RAL 9005 Cool vs RAL 9016 Regular

