Novapint D Solar Reflective colorants are an intelligent combination of conventional façade colorants that have excellent solar heat reflective properties and a functional NIR reflective black colorant to replace iron oxide black.

Application

Novapint D Solar Reflective colorants are specially developed for water-based façade paints and plasters. They minimize heat build-up in architectural paint applications for facade, roofs, window frames and Exterior Insulation Finishing Systems (EIFS).

Properties

The aim of solar-reflective coatings is to maximize the solar reflectivity of the coated surface. Reflectivity is achieved by the physical back-scattering of solar radiation by pigment particles. This is well-known for the visible range. However, solar radiation does not only comprise visible “light”, but also ultraviolet (UV) and near-infrared (NIR), contributing over 50% of the solar energy, see figure 1.

The amount of total solar energy absorbed by a top coat determines the heat build-up of a coated surface and results in a surface temperature depending on the duration of exposure. To achieve cool façade surfaces, the pigments in the coating, need to reflect as much energy as possible. This reflection ability can be expressed as the Total Solar Reflectance (TSR) value (100% = total reflection; 0% = total absorption). Therefore, pigments with high TSR values show a high reflection combined with low heat build-up, and vice versa.

Our Services

As a frontrunner in integrating tinting solutions, Chromaflo Technologies provides excellent service in the set-up of your tinting systems as well as smooth colorant technology conversions. Our technical support includes:

- Assurance of colorant and base paint compatibility
- System design, optimization and pigment selection
- Color matching and database development
- Equipment compatibility and sales support

Stringent production controls and processes ensure that all colorants are manufactured to rigid specifications for color shade, strength and rheology. The end result is assured color accuracy and reproducibility.
This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

The values given in the table are guidance figures only. The data is obtained from pigment suppliers, individual testing is recommended.

1) Light fastness is measured on an eight step blue scale, where 1 = very poor light fastness, 8 = excellent light fastness.
2) Weather resistance is measured on a five step gray scale, where 1 = very poor weather resistance, 5 = excellent weather resistance.
3) Chromaflo Technologies recommends to use only colorants containing inorganic pigments in high alkaline environments and in exterior silicate or silicone based products.
4) TSR values (Solar spectrum AM 1.5 according to ASTM G 159-98) at adjusted L value (1/3)