



## Formulating the 'Black Rainbow'

*Who Says a Rainbow Has to Be Colorful?*

For 40 years, The Shepherd Color Company has been producing a wide range of high-performance color pigments, many of which are infrared reflecting (IR) Black pigments. These pigments aid in the development of durable and aesthetically pleasing products that address sustainability issues, like reducing energy usage and cooler to the touch products. So what is pleasing about a black rainbow you ask? People are often more drawn to darker objects other than stark white objects, not to mention, some darker objects hide dirt more easily.

Our Black pigments for coatings and plastics all vary in masstone jetness, Total Solar Reflectance (TSR), and tint strength, the three main properties of an IR Black pigment. This forms the foundation of the 'Black Rainbow'. These properties are driven by pigment chemistry, particle size and other factors which means all three properties become a balancing act. This leads to a range of products forming the 'Black Rainbow' of visually similar black colors, but with different performance properties providing options for the paint and coatings formulator. The most apparent difference in these pigments is the masstone color.

Shepherd Color's Arctic® IR reflective pigments are used around the world in building and construction applications to potentially extend product life and reduce the amount of solar energy absorbed. The sunlight that is absorbed negatively affects energy usage by increasing the energy needed to cool buildings and can heat up the general area driving the urban heat island effect. Our Black pigments reflect back the sun's invisible IR energy, helping keeping buildings and products cooler.

Shepherd Color is on our 5<sup>th</sup> generation of products that maximize a jet masstone, high tint strength, and high TSR. We also combine our IR reflective Arctic® pigments with our Dynamix® easily dispersed technology so that lab time development is reduced and can support small and large scale production. Many of our Black pigments can be used for:

- Building and Construction
- Automotive Coatings and Plastics
- Food Packaging
- Cookware Coatings
- Porcelain and Glass Enamels

### ABOUT THE SHEPHERD COLOR COMPANY

Founded in 1981, The Shepherd Color Company produces a wide range of high-performance Complex Inorganic Color Pigments (CICPs) used in a variety of industries. These pigments are an extraordinary class of inorganic pigments that offer stable, long-lasting color for many applications. They have unbeatable weatherability, heat and chemical resistance, are non-warping and easy to disperse. *More Expertise. Better Performance. Best Value. That's Shepherd Color.*