

Blackest Material Ever!

This black is so dark, it can help scientists see light far out in space!

A company in England has created the world's darkest material. Called Vantablack®, it is made of extremely tiny tubes of the element carbon. Scientists invented a special process to form a layer of these carbon tubes on surfaces like aluminum foil.

Why is Vantablack so dark? You see objects when

light bounces off them and into your eyes. But Vantablack **absorbs**, or soaks in, almost all of the light that hits it. Only 0.035 percent is **reflected**, or bounced off. (Regular black paint reflects about 5 percent. The darkest things in the universe—black holes—reflect 0 percent.)

Why is it important to make something so dark? Astronomers could use Vantablack to coat the inside of space telescopes. By absorbing bright light from the sun, the material could help the telescopes detect much fainter light from galaxies far away.

Seeing Light

Visible light is made up of all the colors of the rainbow. You see objects when that light bounces off them and into your eyes. When light strikes most objects, some colors are absorbed and others are reflected.

The colors of light that bounce off an object determine its color. So red objects reflect red light and absorb every other color. Objects that reflect all colors appear white. And objects that absorb all colors look black.

