

# Understanding Whiteness Measurement

## How White is your White?

The evaluation of the whiteness of a product is dependent upon the materials and the application in which it is used. Natural materials, for instance cotton or wool, tend to yield a yellowish tint, so the industry will make modifications to the materials to compensate for this effect. A yellowish tint in a product is most often seen as a quality flaw, e.g., yellowing due to aging or dirt, and businesses will attempt to make the appearance of their products more white.

## Is there a difference between the available indices?

Yes. Several dozen formulas exist to describe what the human eye perceives as "whiteness". As the eye tends to describe materials with a slightly bluish tint as "whiter", e.g. the compensation of yellowish colors of raw materials with the help of blue colorants or optical brighteners became common practice compared to former times, so existing formulas needed adjustment. Since different applications define their own white standards or white references, several approaches to satisfy the appropriate market needs were taken. This results in indices for paper, textile or food industries, all of them using various mathematical calculations to describe what "their" white is.

## Which Whiteness Index is right for your product?

A wide variety of indices are available for industries that need to evaluate the whiteness of their products; e.g., paper or textile fibers. Due to the fact that some indices are used to communicate values, choosing the correct index for your application is important.

See the Whiteness indices and UV standards Application notes on our website for more information at [sensing.konicaminolta.us](http://sensing.konicaminolta.us)