

## Colors of Minolta products are decided with Spectrophotometer

Design Department analyzes market trends by converting colors to numerical data.

### Background

In the design of new products by the Design Department of Minolta, the product's color is decided as follows:

1. Market research
2. Examination of color sample
3. Examination of painted design model
4. Determination and approval of color resin mixture sample
5. Checking of products from trial-production run

Until now, the color was specified to the design model maker or resin casting maker using a color sample. Design models are shown to the sales departments in order to collect opinions about new products for next term. Previously, when considering a new product, the painted color of the design model was sometimes slightly different from the color of the resin mixture sample. Since the color difference at this time was very slight and fit the basic intention of the designer, revision of the color was not requested. However, when the person in charge of sales saw the products made during trial production, problems occurred. Because of that slight color change, his image of the product was different than the image he had when viewing the design model. To prevent such problems, it became necessary to control the color objectively, and utilizing numerical color control with a colorimeter was examined.

### Outline of the measurement process

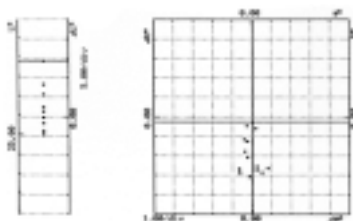


When painting the design model, a resin plate is painted at the same time and submitted to the resin casting maker as the color sample. This color sample is measured with the Spectrophotometer, and the color sample mixture submitted by the resin maker is also measured. To simplify color control even further, a color sample mixture sheet (shown below) was made, listing the color difference as numerical data. In addition, during the design investigation stage, numerical data of the color of other company's products are collected. From those data, it was determined that there is a tendency toward the same gray color used for a certain product group as shown below.

Color sample mixture sheet

### Results

- By introducing objective numerical data to the design process, it became possible to judge colors scientifically using technology instead of judging them subjectively by eye.



Output example of examined data with Spectrophotometer