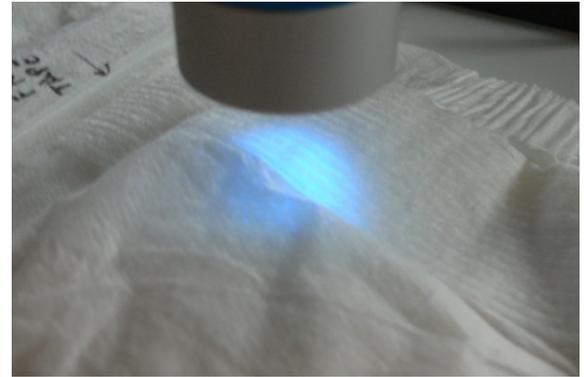## 1.Fleece control with the fluorescent color sensor

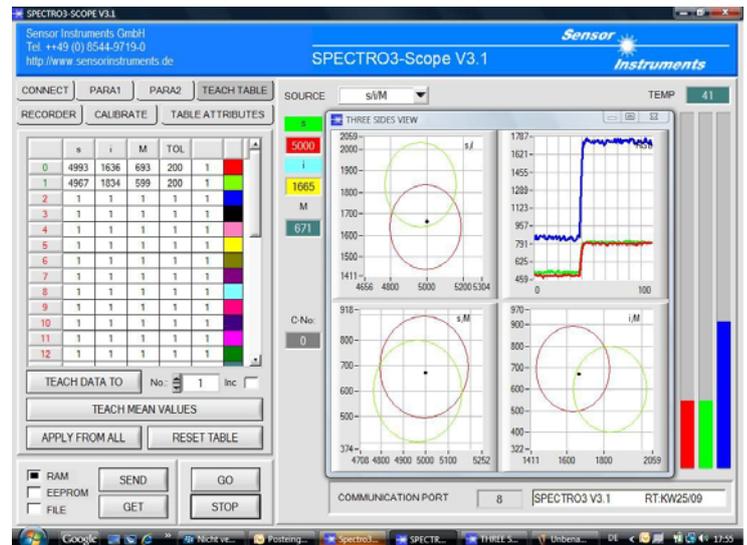### 1.1 Detection of the presence of the fleece during the production of disposable diapers

During the production of disposable diapers the assembling of the fleece must be checked. The production speed is approximately up to 10 m/s and the height of the diapers can slightly changing. Furthermore the color of the diaper as well as of the fleece is white, however, the fleece is UV fluorescent und this can be controlled with the fluorescent color sensor **SPECTRO-3-30-UV**. This sensor delivers a switching frequency of 25 kHz and is fast enough for this application.

Used sensor: SPECTRO-3-30-UV

Field of application: Hygienic industry

The screenshot shows a significant difference in color as well as in intensity. The red circle informs about the fleece (more blue and brighter), whereas the green circle delivers the result of the diaper textile (darker). A proper difference between diaper textile and the fleece is given.
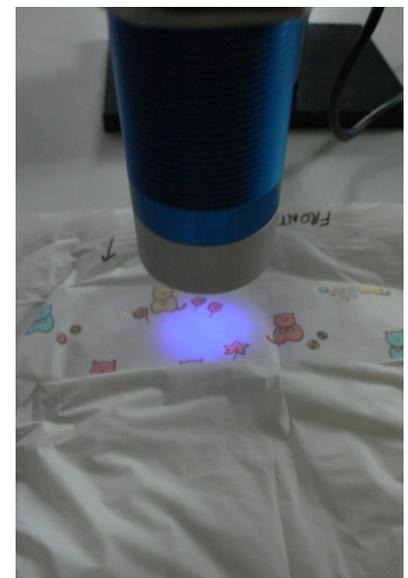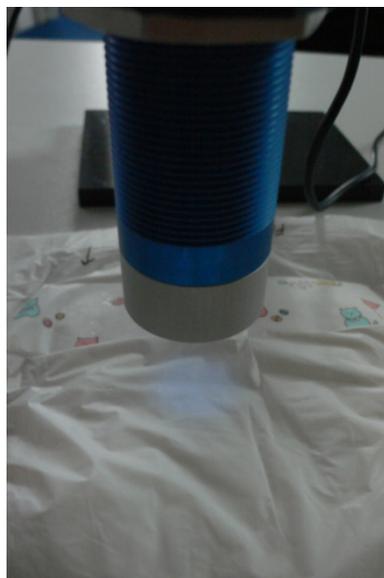
1.2 Fluorescent label control (presence or absence) on disposal diapers.

A quite similar application is the detection of fluorescent labels on the disposal diapers. Even is this case a fluorescent color sensor can be used. The left picture shows the fluorescence of the diaper material, whereas the fluorescence of the label, as shown in the right picture, is much higher in intensity.

Used sensor: SPECTRO-3-30-UV

Field of application: Hygienic industry

1.3 Fluorescence control during the production of the fleece

The fluorescence color as well as the fluorescence intensity must be hold inside a certain range to guarantee and deliver high product quality to the manufacturer of the diapers. Thus a fluorescence color sensor will also used in this case. The screenshots shows the values of three different, one sample with the standard fluorescent concentration, one sample with half of the normal concentration and one sample without any fluorescent concentration. The UV color sensor delivers proper results.

Used sensor: SPECTRO-3-30-UV

Field of application:

Hygienic industry