



### 1. Inspection of perforated cigarette paper

During the laser perforation of cigarette paper it happens sometimes that around the holes the paper is partially burned. Observed from a certain distance, the cigarette paper looks like a white paper with more or less gray stripes. The perforated stripes should be inline controlled, whether there is a color as well as intensity shift into the gray range.

For this task a color sensor type **SPECTRO-3-FIO-CL** in connection with an optical fiber **R-S-R2.1-(6x1)-1200-67°** and an optical frontend type **KL-8-R2.1** are used. The distance of the **KL-8-R2.1** to the perforated cigarette paper is approximately 11 mm and the spot size at this distance is around 4 mm x 0.7 mm. As shown in the screen shots a proper differentiation between the good and the bad perforated stripes is possible.

Furthermore, even a distinction between burned stripes, slightly burned stripes, proper stripes and no stripes is possible.

