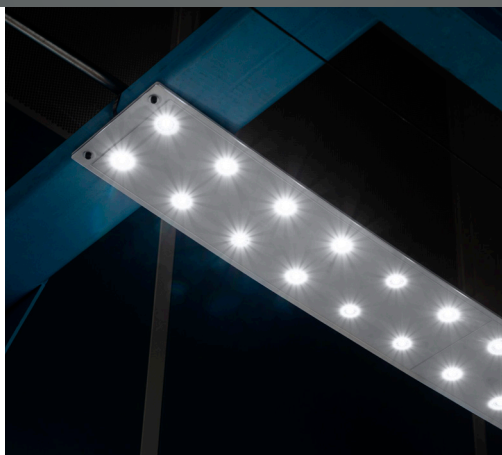






# Customized LED solutions for Ball Beverage Packaging



## Constant light quality with innovative LED solutions

**LED iBond designs innovative LED solutions for Ball Beverage Packaging specialized production. The new LED solution matches the high requirements for light quality as well as the need for a significantly longer lifetime of the light sources, and thus minimizing maintenance costs.**

Ball Beverage Packaging in Fredericia manufacture aluminum cans for breweries worldwide. It is a highly automated production that runs 24 hours a day 365 days a year and produces 120 aluminum cans per second. It is essential that the print and color composition of the cans is of a consistent color quality, and therefore there are strict requirements for light quality and light levels.

"Since the fluorescence of the fluorescent lamps (CRI) degenerates over time, and in order to ensure a constant light quality in the Inspection Frame (last end of line quality control), we had to replace the conventional light sources after approx. 2100 hours of operation. It was a time-consuming task and a financial burden to replace the fluorescent tubes approx. every third month, especially in areas of our production, which are critical to daily operations," explains Jørgen Linnet, Maintenance Manager.

### Customized LED Solutions Match Requirements

LED iBond created various LED devices that were closely tailored to the individual areas of the production environment: enhanced high and intense light levels, consistent and accurate color rendering, robust

### Facts

#### New LED solutions in the production environment:

Inspection Control Frame: Specially adapted LED panel CRI +90 and CCT 6500K diodes as well as DALI controlled driver.

Inspection line: Specially adapted LED panel CRI +90 and 6500K diodes as well as DALI controlled driver.

Work and inspection lights: Increased light level to 1000 Lux and 6500K, CRI +90, light sources with +100,000 hours of life in robust luminaire construction.

Ceiling lighting in the production facilities: Installation of Ø600 LED luminaire with CRI +90 and CCT 4000K.

luminaire design, and specially adapted LED constructions for the critical environments in the production. The diodes are carefully selected in relation to the demands for a very high color rendering of CRI +90 and color temperatures up to CCT 6500 Kelvin, as well as the demand for a significantly longer lifetime +100.000 hours of the light sources.

"Based on our input and enquiries LED iBond A/S designed and adapted the individual LED solutions for each specific task in our production line and quality control. We carefully selected the diodes and driver quality that matches the tasks in our production. In addition, we welcome the significant energy savings of approx. 60% kWh, which we have achieved by switching to LED light. Our operating staff is very pleased with the new LED solutions, and not least the long life of the diodes at +100,000 hours, meaning that we will not have to replace the light sources for many years to come".

#### Project facts:

Increased Color Rendering: CRI increase to +90

Increased Correlated Color Temperature: CCT 4000K → 6500K

Increased Lifetime: +100,000 hours on drivers and diodes

Energy Savings: approx. 60% kWh

Installation: 2017-2018

**For more information**  
**[www.ledibond.com](http://www.ledibond.com)**

## EMPOWER THE FUTURE OF ILLUMINATED IoT

LED iBond empowers the future of illuminated IoT through its intelligent panel system which can transform infrastructure for light, data and electricity – either individually or combined – in one super slim panel.