

Disinfect sugar syrup efficiently with UV

Stronger than pasteurisation



Focus on SOFT DRINK PRODUCTION



The challenge: spores and fungi in sugar syrup

Sugar solutions are a key ingredient in soft drink recipes. However, sugar syrup is particularly susceptible to spores, yeast and mould. These must be reliably removed. Pasteurisation, the traditional method in sugar syrup disinfection, cannot do anything against heat-resistant germs. Some of these thermoresistant spores can be stimulated to germinate and grow by the pasteurisation process.



The powerful solution against germs: UV treatment

An effective alternative to heat treatment is disinfection by means of ultraviolet (UV) irradiation. The ProMinent UV system Dulcodes LP thin-layer can disinfect up to 36 m³ of sugar syrup per hour. UV disinfection is a proven method for inactivating harmful microorganisms. Its UV radiation kills up to 99.99% of all germs in translucent media.

Kills heat-resistant germs

Thermoresistant spores cannot always be sufficiently eliminated by pasteurisation. Some of these spores can be stimulated to germinate and grow by the pasteurisation process. UV disinfection can also render 99.99% of these thermoresistant spores harmless.

Economical in terms of energy and costs

UV disinfection requires less energy and is more cost-efficient than pasteurisation. Mostly sugar syrup with 60-65° Brix is involved. Conventional heat treatment processes use a heat exchanger and significant amounts of energy to bring sugar syrup to high temperatures, hold it there for a longer period of time and thus sterilise it. Compared to pasteurisation, UV treatment allows the syrup to be disinfected within a very short time without adding heat. UV irradiation with the required dose is completely sufficient for disinfection.

Higher product quality

The taste and appearance of the beverages are not changed by treatment with the Dulcodes LP thin-layer UV system. Replacing pasteurisation therefore increases product quality.



More efficient than heat treatment: UV disinfection

- Sugar syrup is susceptible to spores, as well as yeast and mould.
- These germs must be reliably removed
- Pasteurisation, the traditional method in sugar syrup disinfection, cannot do anything against heat-resistant germs.
- The UV treatment is the better alternative, because
 - it requires less energy
 - it has lower operating costs
 - it is more effective in combating germs: UV disinfection can also render 99.99% of thermoresistant spores harmless.
 - The taste and appearance of the syrup are not changed.
- The ProMinent UV system Dulcodes LP thin-layer is ideally suited for these requirements

