

Virus disinfection with UV-C light makes schools safer

Case studies of air purification at Hanau schools

Viruses, bacteria and other microorganisms spread through tiny water droplets in the air, so-called aerosols. They can survive there for a long time and are transmitted from host to host. The risk is particularly high in rooms with many people - such as waiting rooms, offices, gyms or classrooms in schools. Often, the situation is aggravated by the fact that these rooms cannot be well ventilated or there is no central ventilation. Especially in winter, ventilation is also unpleasant: ideal conditions for viruses.

UV-C light is energy and very effective against viruses, bacteria and fungi. Especially viruses, such as the SARS-CoV-2 virus and its mutations are easily destroyed by it. They have only a thin lipid (fat) layer. This is easily penetrated by UV-C light and destroys the virus immediately. Children, adolescents, and teachers thus receive additional protection to the usual hygiene measures in classrooms with frequent changes during classroom instruction.

On behalf of the city of Hanau, Heraeus Noblelight installed UV-C air purification units in classrooms at several municipal schools. Safe and certified UV-C air purification units were installed on the walls or existing ventilation systems were retrofitted in the cafeteria and two classrooms of the Elisabeth-Schmitz-Schule. Likewise, the August Gaul School gymnasium and the Anne Frank School activity center were equipped.

Retrofits make sense in all existing recirculation systems if they cannot be operated exclusively with fresh air. The students are not aware of the function of the devices. The cleaning process with UV-C light is odorless and the lamps are installed in such a way that you are not exposed to any risks if the equipment is installed correctly.



The renowned Fraunhofer Institute for Building Physics has for the first time confirmed the effectiveness of air disinfection by means of closed UV-C air purification devices under real conditions for a classroom on the basis of an elaborate scientific application test. Heraeus UV-C air purification devices can reduce the virus load in closed rooms by over 99%.

The disinfecting effect of UV-C light has been confirmed in further tests, e.g. with the Hygiene institut biotec or the University Hospital Tübingen.

Advantages of UV-C air purification with Heraeus Soluva equipment:

- ✓ free from chemicals
- ✓ without filter
- ✓ low maintenance requirements
- ✓ without ozone and by-products
- ✓ no uncontrolled escape of UV-C-light
- ✓ no germ resistance formation

