

# Test method for the "LEVEL 3 VIRUS HYGIENE" seal

Verified by University Albstadt-Sigmaringen according to independent scientific criteria and awarded the Golden Virus Hygiene Seal - Level 3 - by the Institute for Integrative Hygiene and Virology - InFluenc\_H.

InFluenc\_H
INSTITUTE FOR
INTEGRATIVE HYGIENE
AND VIROLOGY
Test-No.: LI-022-141

**Test-No.:** LI-022-141 **Test report date:** 27.05.2022

Test period: December 2021 till May 2022
Test units: MFL70-S1403B/C14E-EU(NB)
MFL80-DU1403B/C14E-EU(NE)

MFL80-DU1403B/C14E-EU(NE) MFL90-JUU1403B/C14EW-EU(NA) MFL100-U1403B/C14EW-EU(NA)

Representative of all washing machines and washer-dryers of the MF200 series equipped with the tested AllergyCare program.

## Test procedure for efficacy of virus deactivation:

The testing of the washing process requires a stepwise procedure for virus deactivation efficacy according to the European tired approach. This includes quantitative suspension testing followed by testing under practical-based conditions in the laboratory. In addition, the test procedure is carried out under household conditions.

To test the efficacy of virus deactivation, the European model virus Murine Parvovirus (MVM) strain Crawford was examined. The test virus MVM (Minute virus of mice) is used as a representative for enveloped and non-enveloped viruses, like SARS-CoV-2 virus, influenza viruses, HIV, HBV, norovirus, adenovirus etc.

With the efficacy of virus deactivation against the European model virus in a chemothermal washing process, a high virucidal activity against all viruses can be claimed.

### Test program:

In the AllergyCare Program 90°C with a domestic laundry powder detergent with bleach.

#### Performance of test:

The Institute for Integrative Hygiene and Virology - InFluenc\_H determined the parameters of the washing process of the test program and a quantitative suspension test was carried out with the respective test virus, reference detergent and high organic load. In the practical-based test procedure 3 textile carriers were contaminated with MVM as well as a blood soiling in each test run. Together with the ballast load of cotton fabric (wfk Testmaterial) and the soil ballast SBL2004 (wfk Testmaterial), adapted to the ballast load quantity, the textile caries was washed in the test program. The quantity of cotton fabric is calculated on full, half and quarter ballast load of the nominal capacity of the test program according to EN60456. The reference detergent for heavy soiling was adjusted to the respective ballast load of cotton fabric and dosed manually. After the test run, the textile carriers were examined for the remaining amount of virus and the reduction factor was calculated. The reduction of the test virus was determined separately for each of the 3 textile carriers. The virus reduction had to reach at least 4 log levels in 4 of 5 test runs in both tests.

## **Test Evaluation:**

In the Allergy Care Program 90°C can be reduced more than 4 log steps of the test viruses MVM in a practical test with a domestic laundry powder detergent with bleach.