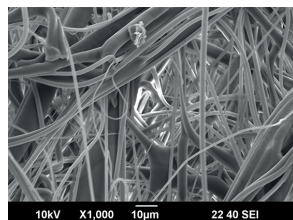
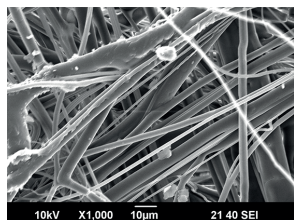


STERILISATION OF FFP3 RESPIRATORS IN A MICROWAVE OVEN ≈ ≈ ≈ ≈ ≈ ≈ ≈

In case of crisis and equipment shortage it is possible to sterilise and reuse FFP3 respirators. The filters do not significantly lose their filtration effectiveness by repeated use. **But it is only an emergency solution.**

The water vapour effectively sterilises viral particles and does not significantly lower the filtration effectiveness of the respirator even after 5 cycles (although small decay of efficiency by few % was observed).

The microstructure of the filtration layer before and after 15 sterilisation cycles



- **Do not sterilize the respirators by autoclaving or by applying disinfectant solutions (such as ethanol, isopropanol, etc.)** – these methods neutralize the charge on the surface of the fibers and reduce the filtration effectiveness by up to 40%.

Carrying out the sterilisation of the respirators and their repeated use is at your own risk and is meant only for emergency situations of acute lack of protective equipment. The process is not authorized by the manufacturers of the respirators. The filtration efficiency guaranteed by the manufacturer lowers with each repeated use of the respirator.



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HOW TO DO IT:

You will need used single-use respirator, 50 ml of water and plastic bowl with a grate or perforated lid on top. The grate or perforated lid must not be made of metal!



1. STEP ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈

- **pour 50 ml of water in the bowl and place the respirator (with its the outer side facing down) over the water.**



2. STEP ~ ~ ~ ~ ~

- put the bowl and respirator into the oven and set the time based on your oven power (table)**

1100 W+	800 - 1000 W	500 - 700 W
1,5 min	3 min	5 min



During the sterilisation process about half of the water should evaporate. If less water evaporates, the sterilisation might be ineffective ► prolong the time
If all water evaporates, the vapours might not be present long enough
► increase the water amount



3. STEP ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈ ≈

- use a marker to mark each sterilisation cycle

