Make4Covid PPE Disinfection and Assembly Guide V1.4

4/16/20

How has this item been handled prior to delivery?

For your safety, all producers, inspectors, handlers, and drivers were directed to follow a detailed set of precautionary procedures to reduce the chance of this equipment being contaminated, including the use of PPE, chemical disinfectants, and strict self-monitoring. These procedures were developed based on the latest scientific studies and CDC guidelines. A copy of these procedures can be viewed under SOPs in the menu bar here: sop.make4covid.co

Although care has been taken at all times, this equipment has not undergone a rigorous disinfection procedure. Therefore, we encourage you to disinfect it before use (see below).

Suggestions for Disinfection

If your organization has procedures or equipment for chemical disinfection, we advise you to use those. If not, we've included alternate methods to inactivate or destroy infectious SARS-CoV-2 (COVID-19 virus) below.

Disinfecting Face Shields:

- Treatment with a dilute (2-5%) bleach solution: mix 1/3 cup bleach per gallon of water. Thoroughly spray all equipment, being sure to wet all surfaces, then allow to dry. Equipment may also be immersed in this solution, then allowed to dry. If streaking results, use a clean damp cloth to remove residue.
- Treatment with 70% alcohol (ethanol or isopropanol) sprayed on the surface as outlined above.

As a last resort, heat can be used to inactivate the virus, but optimal temperature and time is difficult to control without proper equipment. In such a scenario, heating at 55C (130F) for 90 minutes can be used to inactivate the virus. Proceed with caution if you use this method for face shields because the headband may melt or deform at temperatures higher than 58C (136F). Dry heat works better for cloth face masks, which do not show the same temperature sensitivity.

Disinfecting Sewn goods:

- Wash in a commercial or residential washer-dryer system.
- Treat with heat (hotter than 60C/140F) for at least 90 minutes.

What are things I should avoid doing?

Autoclaves, while effective for sterilization, will destroy the equipment. The plastic parts are sensitive to high heat and the headband may melt or deform at temperatures greater than 58C (136F).

Chemicals other than alcohol and bleach are effective disinfectants, but many may not be compatible with the material in this equipment. We advise against using untested chemical treatments.

Figure 1 indicates the basic chemical compatibilities of several materials that make up various parts.

Unfortunately, no published information was found concerning the compatibility of quaternary ammonium-based disinfectants on the plastics used for these face shields.

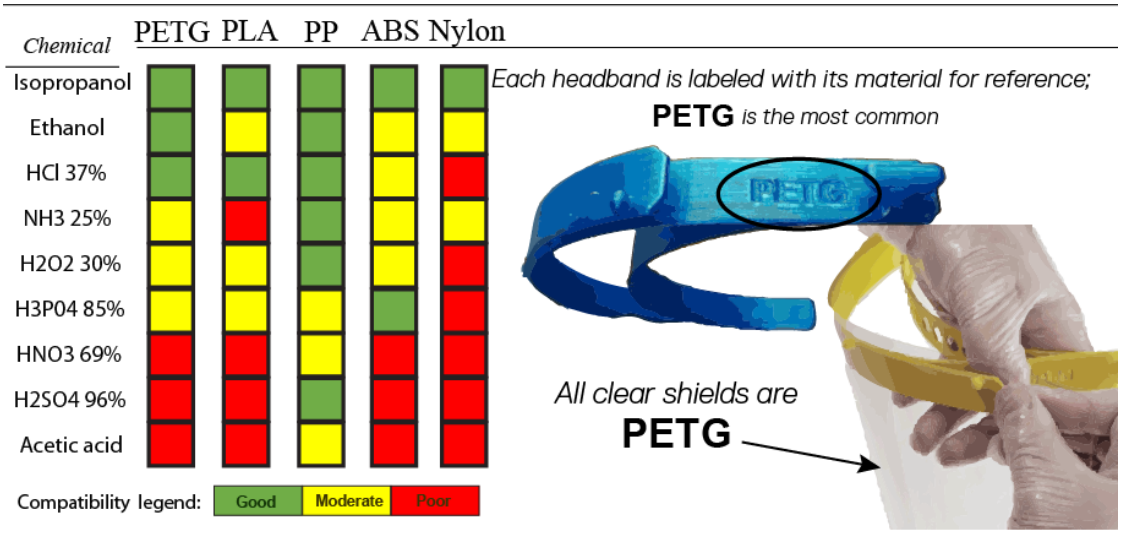

FIGURE 1: CHEMICAL COMPATIBILITY FOR DIFFERENT 3D PRINTED MATERIALS (adapted from 2018 HEIKKINEN, et al) https://doi.org/10.1016/j.addma.2018.07.015

ATTENTION: Openings at the forehead gap and mounting holes allow liquid penetration (AMC spray test data, 4/9/20)

PRUSA Face shield Assembly Instructions

Step 1: Disinfect all components

Step 2: Wear proper protective gloves

Step 3: Peel the film from both sides of the shield

Step 4:

Orient the top of the headband with the pegs on the upper edge. This is important - it creates more distance between the mounting holes and the face. Note that the lettering may be upside down on some headbands.

Step 5:

Start from one edge of the headband and align the outermost hole in the clear shield with the outermost peg. Hold the edge in place while pressing the first three pegs through their respective holes.

Step 6:

With the first three holes secured onto pegs, move one hand behind the last peg. Gently pull on the shield while LIGHTLY pushing/pinching the last peg into the hole.

Questions? Email us at:
producthelp@make4covid.co

Can I reuse this item?

The equipment is designed to withstand several uses **with proper disinfection**. However, the decision to reuse equipment must be based on the procedures and policies of your organization. Parts are designed to be disassembled and reassembled for cleaning purposes (simply follow the instructions in reverse). If parts become damaged or unusable, discard and request replacements. You are welcome to request parts or entire assemblies as needed via productquestions@make4covid.co

Thank you for everything you're doing and we are honored to support you!