Open Source Covid19 Medical Supplies: Material Sanitization Chart References

This document includes an annotated version of our material sanitization charts and references used to develop them.

FDM Printing

Best Practices for Sanitizing 3D Printed Medical Supplies (FDM) (Annotated)

	Ammonia	Chlorine bleach	Ethyl Alcohol	Formaldehyde	Hydrogen Peroxide	Iodophores	Isopropyl alcohol	Paracetic acid	Phenolics	Autoclave	Dry Heat	Ethylene Oxyde (EtO)	Gamma Irradiation	Electron Beam	UV-C
ABS	▲8*	◊2	▲8	▲8	▲8	▲8	◊8		◊8	⬡11	◊11	▲11	▲11	▲11	⬡18
PLA	10		◊10		10	▲9**	◊10			⬡11	◊11	▲11	▲11	▲11	⬡12
Vinyl	▲6	▲6	◊6	▲6	▲6	▲6	▲6		◊6	◊11	◊11	▲11	▲11	▲11	⬡16
PET	▲8		▲8		◊8***		▲8		⬡8	◊11	◊11	▲11	▲11	▲11	◊18
TPU	⬡4	⬡4		⬡4	▲4†	⬡4	▲4	⬡4	⬡4	⬡11	◊11	▲11	▲11	▲11	▲13
Nylon 6	▲8	⬡15	▲8	▲8	⬡8	⬡8	▲8		⬡8	◊11	◊11	▲11	◊11	◊11	▲1
PPE	▲8	⬡5	▲8	▲8	▲8	▲8	▲8		▲8	11	◊11	▲11	◊11	◊11	⬡17
HIPS	▲3	⬡3	◊3	⬡3	▲3	◊3	▲3			⬡11	⬡11	▲11	▲11	▲11	⬡14
PEI‡	⬡8		▲8	▲8	◊8††					◊11	◊11	▲11	▲11	▲11	▲7

▲ Compatible ◊ Proceed with caution ⬡ Do not use No Information

Notes:

*	10%
**	Though no information was available about cleaning PLA with iodine, Iodine can be added to PLA filament.
***	PET has strong resistance to 0.5% hydrogen peroxide, but low resistance to 30%.
†	TPU has strong resistance to 3% HP, hydrogen peroxide, but low resistance to 10%.
††	PEI has strong resistance to 0.5% hydrogen peroxide but limited resistance to 30%.
‡	PEI is also known as the brand name Ultem®

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Feedback

Our mission is to provide transparent, accurate, medically-reviewed content that will help communities around the world develop open source medical supplies. At the same time, recent cyberattacks on American health institutions and disinformation campaigns have shown that there are state-level actors who do not want accurate information shared. Thus, for the sake of information security, we have locked all of our public-facing content to read-only.

We welcome your feedback on the factual information presented here, and especially welcome links to new projects that we can share to the global community. If you have feedback you would like to share, or have an addition to make to our content (whether more information, or projects that should be added), **PLEASE USE THIS FORM TO SUBMIT THAT FEEDBACK.** This will allow our medical team to vet incoming supply design suggestions, and let us process feedback in a centralized way that is not prone to being taken down by malicious actors.

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