Mad Mask Covid Road masks by Marcus Leech/ccera.ca

Description

We make contagion-control face-masks from time to time, based on evolving design guidance from organizations such as the *World Health Organization,* the U.S. *Centers for Disease Control,* and *Health Canada.*

The masks are made from 5 layers of non-woven polymer, or hybrid polymer fabric. Those types of fabrics are easily sourced and have shown excellent properties for making reusable filter masks.

The outer layer of our masks is typically made from a spin-melt polypropylene fabric, typically *Oly-Fun* or *SmartFab,* and are available easily in many different colors and bolt sizes.

The next layer is made from a *Hydro-Knit* or *Sontara* type fabric that includes both polypropylene and cellulose fibers. This material is often used in medical applications like sterile surgical drapes and disposable surgical masks.

Next is a filter layer made from melt-blown polypropylene fiber with a filter rating of MPR1500.

Next is veil layer, intended to keep any stray filter fibers from migrating through the back layer that is next to the face, and potentially producing skin irritation. But it also augments the filtering in the other layers.

The layer next to the face is another layer of soft spin-melt polypropylene fabric.

The inner 4 layers are the same on every mask, whereas the outer layer can be a combination of any pair of “pie-wedge” shaped pieces of spin-melt fabric in a variety of colours and patterns. While the outer layer is “decorative”, it is also quite functional, providing both droplet filtration and moisture repellent properties.

All seams are double-row stitched using synthetic thread.

The masks use a pair of 8mm elastic fabric with a split-ring, intended to slide around the **back of the head**. This allows for more-comfortable, extended, use without irritating the back of the ears. The elastics are adjustable using the integrated adjuster beads. The mask should be adjusted to be tight on the face, while still comfortable. A spare set of elastics is included, since they tend to wear out long before the mask itself wears out.

Mask Care

The masks should be cleaned frequently—every two or three days, depending on us. We DO NOT recommend machine-washing or drying. Fill a typical kitchen sink about 1/3 full of very-warm soapy water into which roughly 1TBSP of 5% household bleach has been added. Add the mask(s), and agitate a few times, then let them sit for 20 minutes.

Rinse thoroughly in warm water several times, then let hang to dry. The fabrics tend to dry quite quickly, but placing in an air stream from a household fan will help dry them much faster.

In between full washing, we recommend spritzing liberally with 80-85% isopropyl alcohol, and allowing to dry completely (this should only take a few minutes). I personally keep my mask in the car, along with a small spray bottle of 85% isopropanol, and I'll spritz it whenever the mask is going to sit in the car for more than 20 minutes or so.

The mask itself can last a long time—I have personally used a mask that I made using these materials and it lasted over 6 months, with one or two replacements of the elastic head bands, with regular washing and treatment according to the above schedule.