HOMEMADE MASK GUIDE

We all know that any mask is better than no mask!

THE LATEST SCIENCE FOR SEWISTS:

🌟 GOOD  TWO layers of quilter’s cotton*

🌟🌟 BETTER  TWO layers of quilter’s cotton* +
   a layer of 100% non-woven polypropylene as a filter**

🌟🌟🌟 EVEN BETTER  TWO layers of the polypropylene facing out to the world + one layer of cotton close to
   the mouth***

WHAT IS NON-WOVEN POLYPROPYLENE?
Polypropylene is a synthetic, water-resistant fabric that repels droplets. You are looking for fabric that is 100% polypropylene with dimples rather than smooth. Examples: reusable grocery bags, at least two layers of interfacing (not fusible, has dimples), and conference bags. Keywords you might see: spunbond non-woven polypropylene or “NWPP.”

THE SCIENCE OF LAYERS

Outermost Layer: Hydrophobic
Hydrophobic is material that repels droplets (e.g. polypropylene)

Middle Layer: Your Choice
Ideally, a second layer of hydrophobic or hydrophilic material.

Innermost Layer: Hydrophilic
Hydrophilic is material that absorbs droplets (e.g. quilter’s cotton, flannel and batik)

Avoid: Polypropylene/Cotton/Polypropylene - may not get clean enough to reuse.

DIY TESTING OF MASKS: FIVE KEY FACTORS

Fiber: Hold the material up to a light. The less light that shines through, the more tightly woven it is, meaning that the material will better filter harmful air substances. Batik and quality quilter’s cotton are ideal.

Water-Resistant: Pour about a tablespoon of water onto the fabric. How much the water seeps through to the other side will show how well the fabric repels water.

Breathability: Make sure you can breathe with the mask on. Waterproof (rather than water resistant) materials, and fabrics like spandex are not breathable. Additionally, fabrics containing glue may be harmful/include harmful chemicals.

Filtration: Test filtration with a quick and simple science experiment at makermask.org.

Fit: Nose pieces and a good fit are key. Make sure mask covers the face from nose to chin and ear to ear. Be sure that there are no gaps, mask perimeter should be flush to the face.

For more on the science, see Makermask.org

Listen to the Homemade Mask Summit at JustWannaQuilt.com

Request, Make, or Volunteer at WeHaveMasks.org

THANK YOU ESPECIALLY TO DR. SONGER OF MAKERMASK.ORG.

GOOD  TWO layers of quilter’s cotton*

BETTER  TWO layers of quilter’s cotton* +
   a layer of 100% non-woven polypropylene as a filter**

EVEN BETTER  TWO layers of the polypropylene facing out to the world + one layer of cotton close to
   the mouth***

What is non-woven polypropylene?
Polypropylene is a synthetic, water-resistant fabric that repels droplets. You are looking for fabric that is 100% polypropylene with dimples rather than smooth. Examples: reusable grocery bags, at least two layers of interfacing (not fusible, has dimples), and conference bags. Keywords you might see: spunbond non-woven polypropylene or “NWPP.”

The science of layers

Outermost layer: Hydrophobic

Hydrophobic is material that repels droplets (e.g. polypropylene)

Middle layer: Your choice

Ideally, a second layer of hydrophobic or hydrophilic material.

Innermost layer: Hydrophilic

Hydrophilic is material that absorbs droplets (e.g. quilter’s cotton, flannel, and batik)

Avoid: Polypropylene/Cotton/Polypropylene - may not get clean enough to reuse.

DIY testing of masks: five key factors

Fiber: Hold the material up to a light. The less light that shines through, the more tightly woven it is, meaning that the material will better filter harmful air substances. Batik and quality quilter’s cotton are ideal.

Water-resistant: Pour about a tablespoon of water onto the fabric. How much the water seeps through to the other side will show how well the fabric repels water.

Breathability: Make sure you can breathe with the mask on. Waterproof (rather than water resistant) materials, and fabrics like spandex are not breathable. Additionally, fabrics containing glue may be harmful/include harmful chemicals.

Filtration: Test filtration with a quick and simple science experiment at makermask.org.

Fit: Nose pieces and a good fit are key. Make sure mask covers the face from nose to chin and ear to ear. Be sure that there are no gaps, mask perimeter should be flush to the face.

Based on research studies for fabric masks from the CDC and WHO. Mask designs and colors have not been FDA approved or cleared. Homemade masks are to be used at your own risk, are non-medical, and should be used with personal discretion in a high-risk environment. No warranty or accuracy of the data is provided. CDC Recommendations, https://www.cdc.gov/coronavirus/2019-ncov; American Chemical Society Study on Homemade Masks, ACS Nano 2020, https://doi.org/10.1021/acsnano.0c03252; "N95 Study," https://doi.org/10.1021/acsnano.0c05005. The Homemade Mask Summit was hosted by Newcomb Institute, and co-hosted by the Phyllis Taylor Center for Social Innovation and Design Thinking, Albert Lepage Center for Entrepreneurship and Innovation at the Freeman School of Business, all at Tulane University. THANK YOU ESPECIALLY TO DR. SONGER OF MAKERMASK.ORG.

WEAR A MASK

For more on the science, see Makermask.org

Listen to the Homemade Mask Summit at JustWannaQuilt.com

Request, Make, or Volunteer at WeHaveMasks.org

7/1/2020