

# City of Essen, Germany – Sewing instructions for a makeshift surgical mask

## 1 Reusable surgical mask for temporary use during pandemic events

This reusable surgical mask is completely homemade, it is neither tested nor certified. It only serves as a reasonable alternative if no certified surgical masks are available during pandemic events.

After careful consideration, the production and use are the responsibility of the user.

The surgical mask for temporary use is intended to reduce the spread of droplets by the wearer (patient protection / reverse isolation). It is therefore not a self-protection and its effectiveness depends on the density of the material used. The additional insertion of a boil-proof non-woven fabric can significantly increase the effectiveness.

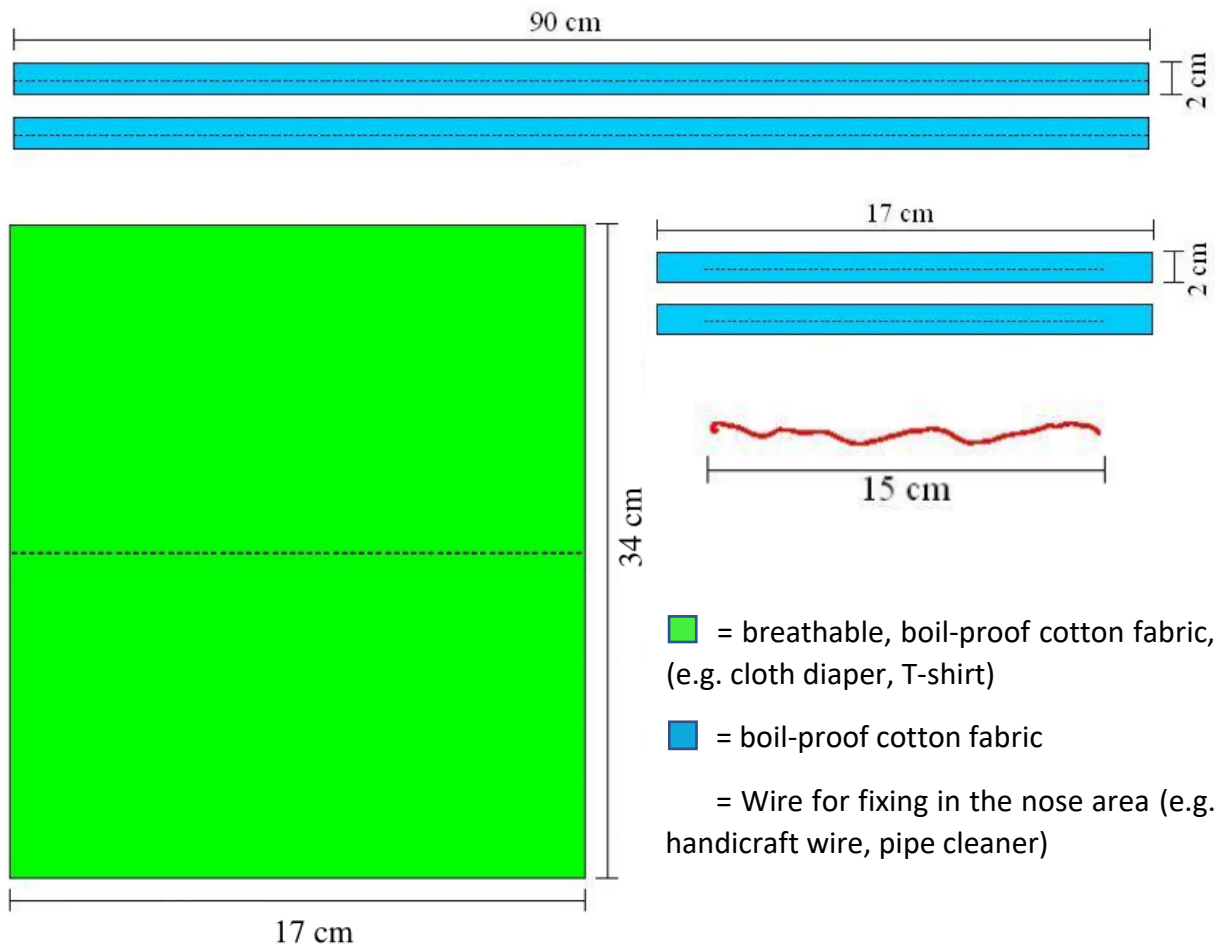
Corona viruses are transmitted by droplets for example, which emerge among others when speaking, coughing or sneezing and can affect the mucous membranes of contact persons within reach. The droplets can also reach surfaces and contaminate them. Direct hand contact with surfaces that are contaminated with virus-containing secretions and subsequent hand-mouth-nose contact can also lead to transmission.

Wearing the surgical mask for temporary use may reduce the transmission of Corona infection. It is advisable to wear a makeshift surgical mask for temporary use each time you come into contact with people at risk (e.g. elderly, immunosuppressed, certain pre-existing conditions) to prevent the distribution of droplets to contact persons.

In order to provide the population with enough makeshift surgical masks for temporary use in the event of a pandemic, the following sewing instructions for self-sewing a washable surgical mask have been prepared.



## 2 Sewing instructions for a reusable surgical mask



### The following materials are required:

1. two 90 cm long and 2 cm wide fabric strips (boil-proof cotton)
2. two 17 cm long and 2 cm wide fabric strips (boil-proof cotton)
3. a 15 cm long thin and flexible wire (e.g. handicraft wire, pipe cleaner, clamping wire of freezer bags)
4. 17cm x 34 cm large cloth made of breathable, boil-proof, permeable cotton fabric (e.g. cloth diaper, T-shirt fabric, light cotton cloth)

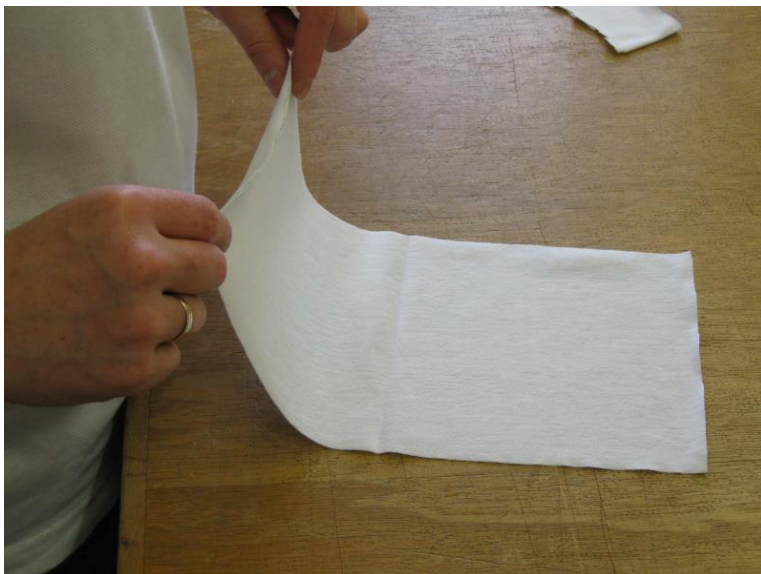
### Testing the permeability of breathing:

- Take a double cloth
- Close tightly around mouth and nose
- Inhale and exhale

If inhalation and exhalation is possible without any major breathing resistance, the material is suitable as face mask!



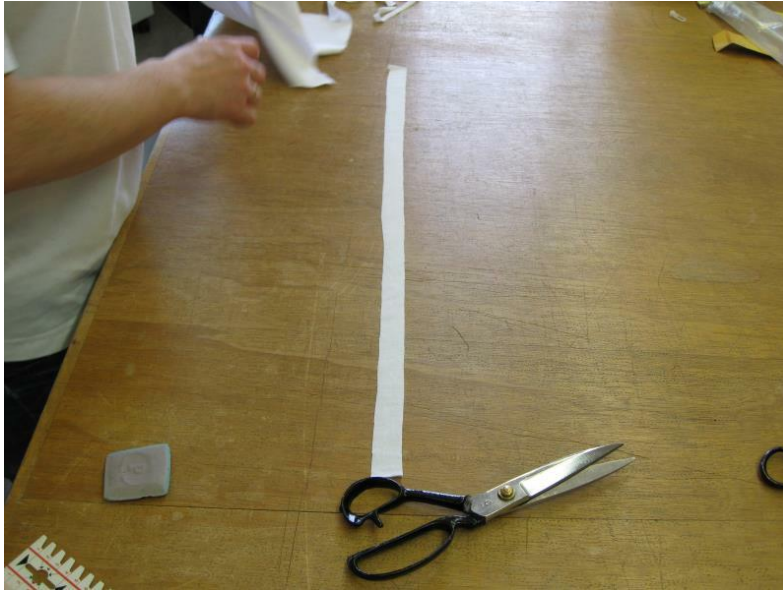
Mark and cut out a 17 x 34 cm large cloth



Fold the cloth in half and iron.



Iron into the cloth 3 evenly distributed folds (fold depth ca. 2 cm).



Cut out two 90 cm long and 2 cm wide strips (headbands) and two 17 cm long and 2 cm wide strips (border) of cotton fabric.

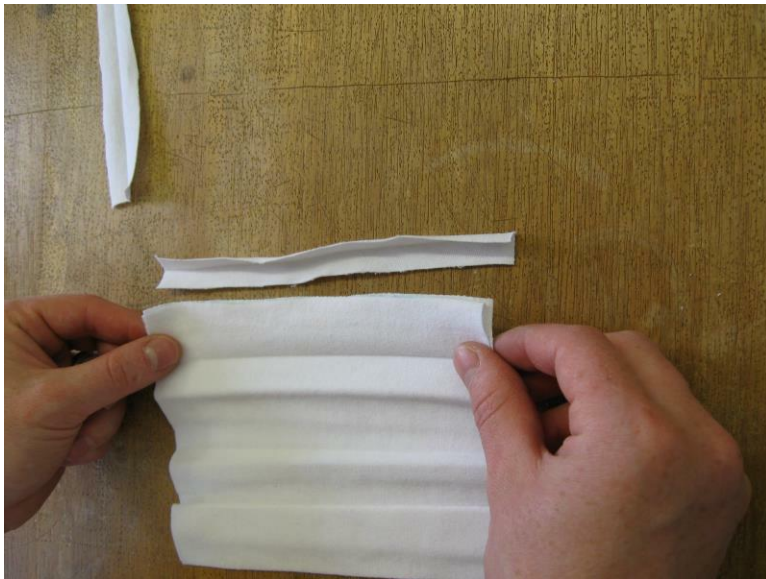
Maybe trim borders.



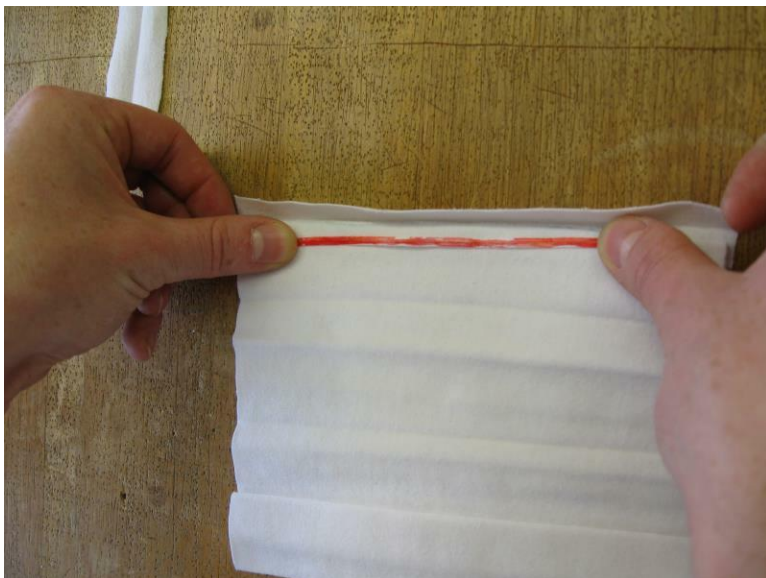
Fold the fabric of all four strips in half and iron them.



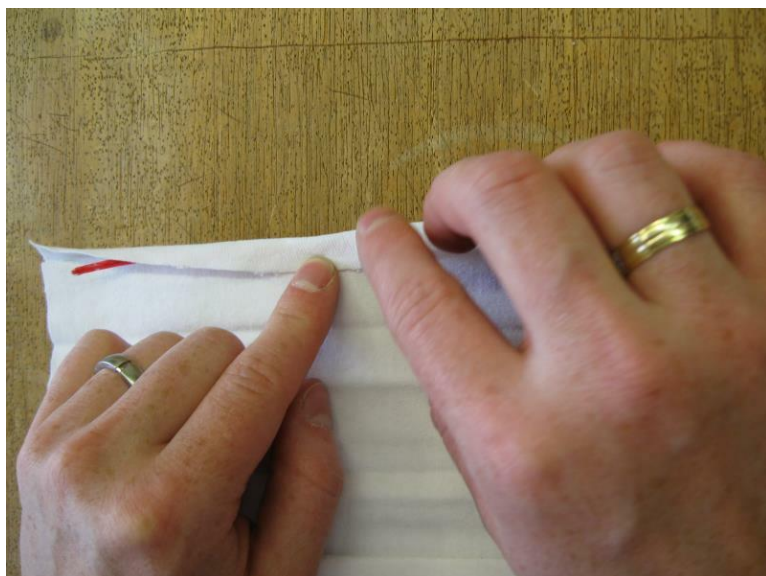




Insert the cloth at the top and bottom into the border.



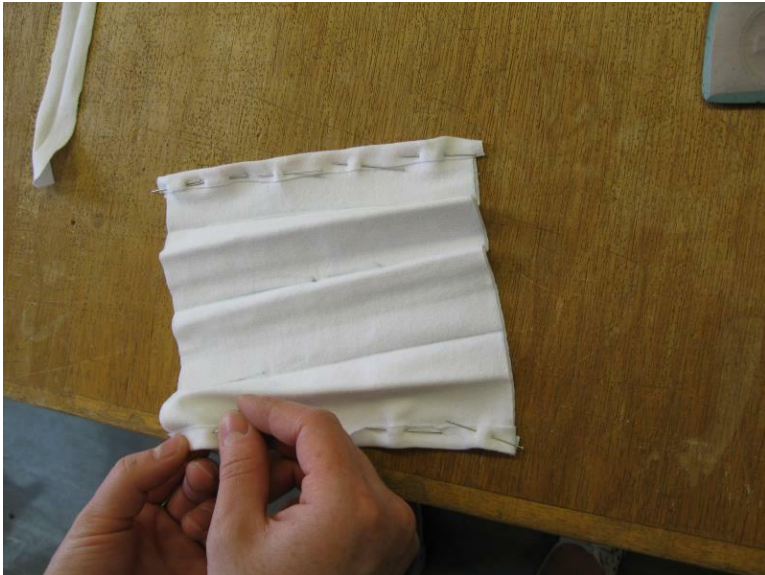
Insert the wire into the upper part of the border.



Fold the border around the wire

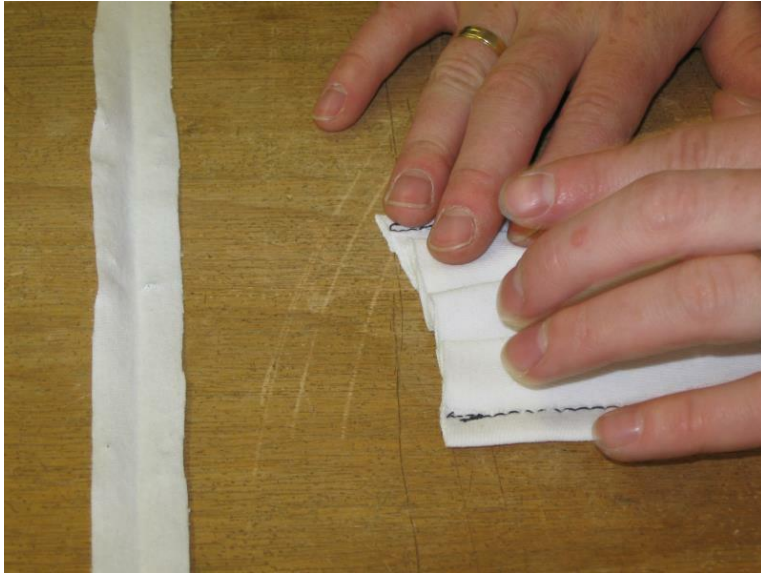


Fasten the border with pins  
and...



start sewing.





Insert the cloth with the ironed-in folds into the headbands on both sides.



Pin the headbands and...



...sew.



### **3 Care and cleaning of the reusable surgical mask**

Store the reusable surgical mask in a dry place. Wash the reusable surgical mask before using it for the first time. After use undo the reusable surgical mask carefully and avoid touching it except for the headbands. Wash your hands after undoing the mask!

Used surgical masks should be cleaned after use or at least once a day. They can either be washed at 90°C in the washing machine or cooked on the stove in boiling water (5 minutes). Afterwards the reusable surgical mask must be dried.

### **4 Disclaimer of liability**

It is specifically pointed out that the City of Essen assumes no liability for the effectiveness, manufacture or proper use of the makeshift surgical mask. Any claim for damages against the City of Essen due to injury to life, body or health – regardless of whether the user or the respective counterparty – is excluded.

The manufacture / use of the makeshift surgical mask is exclusively at your own risk.

It is pointed out that the hygiene regulations of the Robert Koch Institute (Germany) or the respective national authority must be followed in any case.