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KEY WORDS (at least 5 words)

- ✓ Medical mask
- ✓ Bacterial filtration efficiency
- ✓ Air permeability
- ✓ Thickness
- ✓ Breathability

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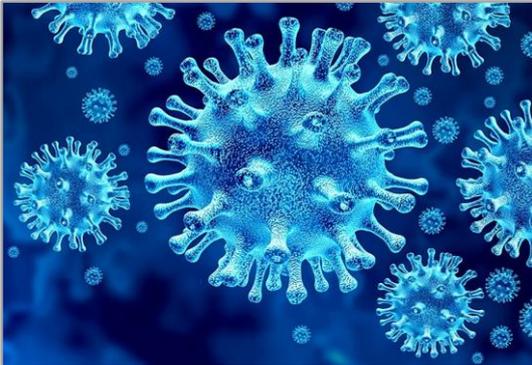


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STRUCTURAL INVESTIGATION AND COMPARISON OF MEDICAL MASKS INCREASING IN USE DURING THE COVID 19 PANDEMIC PROCESS

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THESIS ABSTRACT

Medical and respiratory masks, which are recommended by many national and international occupational health and safety organizations worldwide to protect workers against hazardous aerosol particles, have started to be widely used in the community with the COVID-19 pandemic. In line with the increasing demand during the pandemic, the quality of the masks available in the market may be inappropriate in terms of standards. The aim of this thesis is to test and compare the structural and performance characteristics of masks supplied from the market during the COVID-19 pandemic.

The thickness, weight, air permeability, thermal permeability, water vapor permeability, tensile strength, bursting strength, BFE and DBF of the masks were measured using appropriate standards, with the layers of the masks separately and all layers together.

As a result of the measurements, it was determined that the air permeability of Çok iyi group masks with high BFE values was low and the thermal resistance was higher in masks with high BFE values.

As a result, in the thesis study, it was seen that the masks have different characteristics that can be associated with BFE. Future studies should further enlighten the literature in terms of these properties.

APPLICATION AREAS OF THE THESIS RESULTS

It is aimed to produce face masks using cheaper and faster alternatives to production standards..

ACADEMIC ACTIVITIES

It will be published in the near future