

Designing, executing and producing patterned face masks on jacquard weaving looms for protecting from corona virus

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Abstract:

After the outbreak of the Corona pandemic in the world at the beginning of this year 2020 - and its negative impact on individuals' lives and economic aspects. Medical devices and pharmaceutical companies rushed to find solutions to this crisis by raising awareness of the virus, symptoms of disease, methods of infection, and means of protection, including medical masks. Through my field follow-up, social media and research in this regard - the masks in the Egyptian market are made of two types of textile materials, which are non-woven fabrics, and import raw materials for them, and masks manufactured from them in only one color, which is the blue color - and there are also knitted masks, which are of high permeability. Most of them are black.

The idea of the research depended on the design and implementation of woven masks and engravings, which are executed on jacquard looms. **The Innovative brands of masks are distinguished by the following:**

The number of designs forty design*.

* It is characterized by a high density of warp yarns and thus the possibility of making more than two layers.

* Diversity in types of textile materials (cotton - polypropylene - polyester

Diversity in the tissue structures used to weave these species (10 groups) *

* A difference in the set of wefts / cm - also a difference in wefts count

It can be reused after washing it many ounces - and cheaper *

In addition, the muzzle design contains:

-- Aesthetic, non-fading decorative frame - has four corner holes for easy tape attachment.

-- Some designs can open the two layers apart and put a piece of cloth or tissue paper to increase protection from the virus.

-- All designs, the part adjacent to the user's face, is woven from unpainted cotton weft with warp threads in white color to prevent carcinogenesis.

Keywords:

masks, jacquard, corona virus