

Design and innovation New Weaving Double Reeds and Its Effect on air permeability Fabric Properties

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Abstract

The weaving reed is considered to be one of the most important weaving loom components, also it has a huge effect on the appearance properties of the produced fabrics, as a lot of functions are applied by the weaving reed, one of the most important is to bush the last weft to the previous weaved ones during the sly moving forward using the reed dents to form the fabric.

That is why the reed dents are very important as it represent the pressing point during the sly moving forward to the last thrown weft, and its effect on the straightness of the weft yarns all over the fabric.

In this research these dents function was considered, as those dents have been changed along the reed, by using and applying some of the decorative weaving reeds with the different arranging and density for the dents, we find that using those reeds affected the decorations on the fabric surface, these decorations is a lines in the warp direction, these weaving reeds added value to the produced fabric using it, we didn't need to only use the weaving structure, yarns color or drawing in to achieve a nice simply doctorate fabrics.

It is to be noted too that using these reeds have an obvious effect on some of the fabrics mechanical properties air permeability is one of the most properties which have effect on the produced fabrics.

the reeds with more narrow spacing is more air permeable than that of the fabric produced with more wide spacing reed and reeds with irregular spacing.

also the research results shows that the fabrics produced with cotton is more air permeable than that produced using the acrylic material.

Key wards

weaving reed – dents - mechanical properties – decorative