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(54) Method for making a dope-dyed sinthetic yarn fabric for screen printing use.

(57) There is disclosed a method for making a fabric for use in screen printing frames,wherein the fabric is made starting from a synthetic material yarn,dope-dyed or pigmented,such as a polyester or nylon monofilament.

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METHOD FOR MAKING A DOPE-DYED SYNTHETIC YARN FABRIC FOR SCREEN PRINTING USE

BACKGROUND OF THE INVENTION

The present invention relates to a method for making a dope-dyed or pigmented synthetic yarn fabric for screen printing use,in particular for preparing screen printing frames.

As is known,for making screen printing frames a conventional method is generally used comprising the steps of:

a) assembling a stretched and glued portion of a screen printing fabric on a quadrangular shape,or square shape,frame

b) applying on a surface of the screen printing fabric a photosensible gelatine;

c) exposing the framed fabric,upon screening with the pattern to be printed,to UV radiation so as to set the gelatine,depending on the light amount received by each spot of the frame,and

d) washing out the so-called not-baked gelatine portions so as to cause the printing colored material to pass therethrough to duplicate the pattern of the screen.

For making the above mentioned screen printing frames there was generally used a silk fabric with very narrow meshes,or a synthetic fibre fabric.

This fabric, if white,has a given UV radiation reflecting power,which causes a part of the UV rays to be diffused away,with a consequent poor sharpness of the pattern contour and finest lines.

In order to overcome the above mentioned drawback,dyed fabrics have been prepared,therethrough the UV radiation passes in a more perpendicular way, with a reduced diffusion effect : with these dyed fabrics very sharp and well defined printing contours can be obtained.

In the case of a white screen printing fabric, on the other hand,in order to reduce the above mentioned drawback,the gelatine layer on said fabric is exposed for a reduced time to the UV radiation :however,with such a method,the print screening frame is quickly deteriorated since the scarcely "baked" gelatine,which will be scarcely stabilized,will easily detach from the white fabric.

The use of a dyed fabric,as stated,provides more satisfactory results,with sharp pattern contours even in very fine pattern details.

Preferred colors are comparatively clear since clear colors afford the possibility of properly centering the screening frame on the product to be printed upon.

However,the screen printing dyed fabrics are also affected by some drawbacks,such as the requirement to store a comparatively broad range of dyed fabrics, of different colors and deniers,and/or raw fabrics to be dyed.

Another drawback of known dyed screen printing fabrics is that,for achieving satisfactory screen printing results,it is necessary to dye the raw fabrics at comparatively high temperatures,which can negatively affect the resiliency and strength properties of the fabrics as dyed.

Moreover,since the piece dyeing substantially corresponds to a coating of the fabric yarns by dyeing materials,the diameter of the fabric yarn is frequently altered which,in turn,involves an undesirable variation of the fabric mesh size.

SUMMARY OF THE INVENTION

Accordingly,the main object of the present invention is to overcome the above mentioned drawbacks of known white and dyed screen printing fabrics by providing such a screen printing fabric which has very good characteristics,with respect to an even configuration of the fabric mesh pattern,diameter of the fabric yarns and strength thereof.

Another object of the present invention is to provide such a screen printing fabric which has a very reduced UV radiation reflecting characteristics, so as to allow for the fabric to be exposed to UV radiation for a comparatively long time.

Yet another object of the present invention is to provide such a screen printing fabric which affords the possibility of making screen printing frames adapted to be perfectly centered on the product to be printed.

According to one aspect of the present invention,the above objects have been achieved by a method for making a fabric for use in screen printing frames,comprising the steps of providing a synthetic material yarn,dope dyeing or pigmenting said yarn, and knitting said dope dyed yarn so as to provide said screen printing fabric.

According to a preferred embodiment,the synthetic yarn is dope-dyed with an amber colored material or an orange colored material.

While the invention has been disclosed and illustrated with reference to a preferred embodiment thereof,it should be apparent that the disclosed embodiment is susceptible to several modifications and variations all of which will come within the scope and spirit of the appended claims.

Claims

1- A method for making a fabric for use in screen printing frames,characterized in that said method comprises the steps of providing a synthetic material yarn,dope dyeing or pigmenting said yarn,and knitting said dope-dyed yarn so as to provide said screen printing fabric.

2- A method according to claim 1,characterized in that said yarn is a polyester monofilament yarn.

3- A method according to claim 1,characterized in that said yarn is a nylon monofilament yarn.

4- A method according to claim 1,characterized in that said dope-dyed yarn is dope-dyed by an amber dyeing material.

5- A method according to claim 1,characterized in that said dope-dyed yarn is dope-dyed by an orange dyeing material.

6- A screen printing fabric,characterized in that said fabric is made by a method according to any preceding claims.