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(54) **Stitch-bonded fabric.**

(57) A fabric having a shiny face is made on a two-bar stitch bonding machine. A reflective yarn is laid in over at least two needles so as to appear densely on one face of the fabric only.

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FABRIC

This invention relates to fabrics, in particular, stitch bonded fabrics.

The use of "effect" yarns in fabrics is well known, and reflective or "bright" yarns are frequently used to add lustre or sparkle to a matt fabric. This is true also of stitch bonded fabrics where trilobal yarn is sometimes used as a stitching yarn or as a laid-in patterning thread.

The appearance of a stitch bonded fabric is usually predominantly influenced by the fleece fibre, since the stitching yarn even taken together with any laid in effect yarn is a minor proportion of the fabric by weight.

It is sometimes desired to have shiny fabrics, such for example, as satin, which is, of course, a woven fabric. Attempts are made frequently to simulate woven fabrics (which are expensive) with stitch bonded fabrics (which are not) but to simulate a satin fabric using stitch bonding would be thought to require the use of trilobal fibre for the fleece as well as trilobal stitching yarn, which would be prohibitively expensive, at least in terms of stitch bonded fabrics.

The present invention provides, however, a stitch bonded fabric which achieves a desirable shiny effect without such expensive utilisation of reflective yarn.

The invention comprises a fabric having a shiny face made on a two-bar stitch bonding machine in which a reflective yarn is laid in over at least two needles so as to appear densely on one face of the fabric only.

Preferably, the reflective yarn is laid in over three needles.

The reflective yarn may be a trilobal polyester, and may be threaded full set.

The fabric may also comprise a full set stitching yarn which is stitched in pillar stitch.

The stitching yarn may be polyester or viscose and again does not need to be bright.

Stitching lengths between 0.5 and 1.4 mm give good results, 1 mm being preferred.

The fabric may have a weight between 85 and 180 grammes per square metre, 150 grammes being suitable for many purposes.

The fabric may be made in any desired gauge, but 14 gauge is satisfactory.

The fabric may incorporate by weight more than twice as much laid in yarn as stitching yarn, but this is still a minor proportion of the fabric weight.

One embodiment of a fabric according to the invention will now be described with reference to the accompanying drawings, in which :-

Figure 1 is a lapping diagram for the fabric;

and

Figure 2 is an enlarged view of the shiny face.

The fabric illustrated in Figures 1 and 2 is made on a two bar stitch bonding machine such as an Arachna or Mali machine.

A reflective yarn of 150/48 trilobal polyester 11 is laid in over three needles so as to appear densely on the shiny face.

The trilobal yarn is of course laid in on the back bar of the machine, the front bar carrying an ordinary e.g. 78/24 dull polyester stitching yarn 12 in full set threading stitching in pillar stitch.

The back bar is also threaded full set with the trilobal yarn.

The pattern notation is 00-33 for the back bar, 10-01 for the front bar as is evident from the lapping diagram in Figure 1.

The run-in of the two sets of threads is 4.5:1 for the trilobal, 3.7:1 for the stitching yarn, that is to say 4.5 metres of each laid in thread and 3.7 metres of each stitching thread are consumed in the production of each metre length of fabric. This results in about 50 grammes of yarn altogether per square metre of fabric, of which only about 27 grammes is the trilobal, against a fabric weight of 150 grammes per square metre, in 14 gauge.

The fleece 13 - see Figure 2, where the laid in yarn 11 is omitted from the top and bottom two courses, and the fleece fibres are omitted from the rest, for the sake of clarity - is of polyester fibres.

The particular construction - which is in itself a fairly standard sort of construction - of the fabric using trilobal yarn as the laid in thread gives a wholly unexpected shiny appearance to one face. For the small additional cost of the minor amount of trilobal yarn, a wholly unexpected advantage is achieved.

As mentioned, other fibre and yarn such as viscose or nylon can also be used. Nor is the specification restricted as to gauge - gauges as fine as 28 are easily possible.

Claims

1. A fabric having a shiny face made on a two-bar stitch bonding machine, characterised in that a reflective yarn is laid in over at least two needles so as to appear densely on one face of the fabric only.

2. A fabric according to claim 1, characterised in that the reflective yarn is laid in over three needles.

3. A fabric according to claim 1 or claim 2,

characterised in that the reflective yarn is a trilobal polyester.

4. A fabric according to any one of claims 1 to 3, characterised in that the reflective yarn is threaded full set.

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5. A fabric according to any one of claims 1 to 4, characterised by comprising a full set threaded stitching yarn.

6. A fabric according to any one of claims 1 to 5, characterised in that the stitching is pillar stitch.

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7. A fabric according to any one of claims 1 to 6, characterised in that the stitching yarn is polyester.

8. A fabric according to any one of claims 1 to 6, characterised in that the stitching yarn is viscose.

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9. A fabric according to any one of claims 1 to 8, characterised in that the fleece fibre is polyester.

10. A fabric according to any one of claims 1 to 8, characterised in that the fleece fibre is viscose.

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11. A fabric according to any one of claims 1 to 10, characterised by having a stitch length between 0.5 and 1.4 mm.

12. A fabric according to any one of claims 1 to 11, characterised by having a weight between 85 and 180 grammes per square metre.

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13. A fabric according to any one of claims 1 to 12, characterised by being in 14 gauge.

14. A fabric according to any one of claims 1 to 13, characterised by using more than twice as much laid in yarn as stitching yarn by weight.

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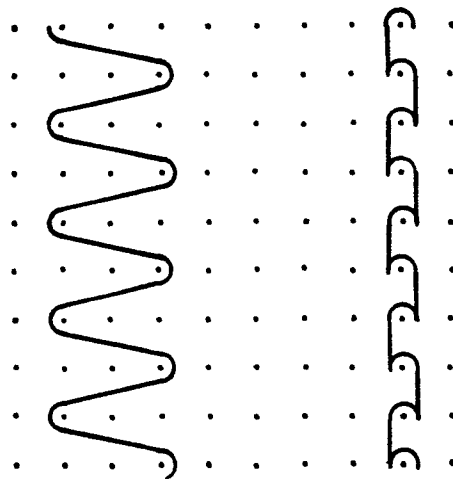


FIG. 1

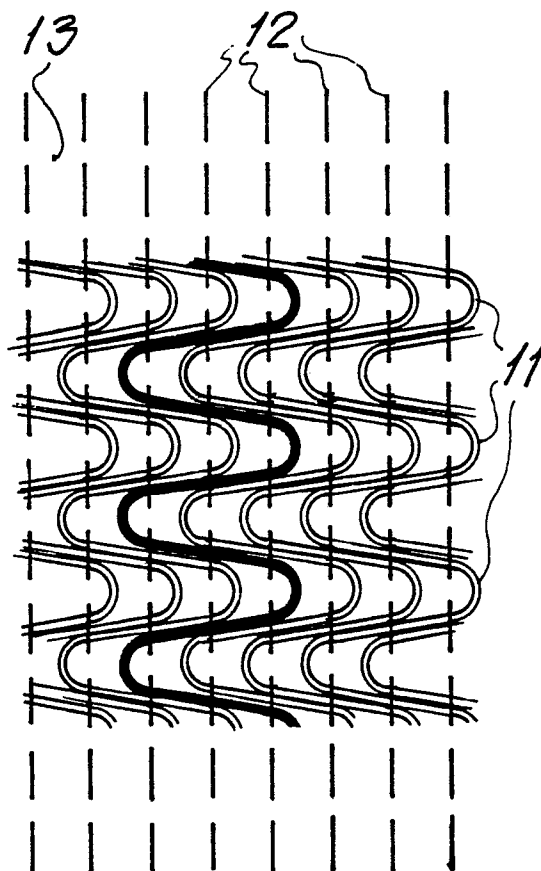


FIG. 2