

ALIEN PROPERTY CUSTODIAN

DYEING AND FINISHING OF TEXTILES

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The present invention relates to a method of simultaneously dyeing and finishing textile materials in any condition of treatment, whereby under the expression "finishing" the attainment of a series of valuable effects is to be understood.

To obtain ordinary effects, as for instance proof against creasing, slight shrinkage or also ensuring proof against swelling attaining a matt surface or the like, it is well known to finish textile materials by means of phenol-aldehyde-artificial resins or urea-aldehyde artificial resins by soaking or impregnating the fabric with a solution containing artificial resins or products of artificial resins, whereby aqueous solutions are used. The operation may also be carried out by applying components, forming resin, to the fibre. The impregnated fabric is then subjected to a heat treatment and thereby the artificial resins are hardened or first of all formed upon the fibre respectively.

These finishing methods are carried out as final methods and hitherto were applied in connection with dyed fabric after termination of the dyeing method only. A limited number of genuine dye-stuffs only was available to dye textile materials which later on were to be subjected to an artificial resin finishing treatment.

Now, according to the present invention a method is proposed which allows to carry out simultaneously in one and the same operation a dyeing and a finishing method by means of artificial resins by applying to the fibre the dye-stuff and the artificial resin by a single bath, whereby eventually the fabric is previously treated with a salt combining with a component forming dye-stuff which is applied to the fibre by the same bath as the artificial resin. This method has the advantage that dyeings of substantially better properties, for instance with regard to genuineness are obtained without interfering with the desired refining effects.

In accordance with a favored embodiment of the invention, the textile material is impregnated in a dye bath which contains water-soluble components forming resin, or a water-soluble preliminary product, for instance dimethylol urea as well as a catalyzer forming a resin and/or a hardening catalyzer as well as a desired dye-stuff. Such artificial resins, preliminary products of artificial resins and components forming artificial resin may be used which are soluble in the aqueous solution of the catalyzer. For instance, if alkali is used as catalyzer it is of no importance whether a preliminary product of an artificial resin is soluble in pure water or not, but that it is soluble in the diluted alkali solution present at the addition of the catalyzer. The textile material to be treated is impregnated with this dye bath and subjected to a heat treatment for the purpose of forming and hardening the artificial resin.

A plurality of resins may be applied to the fibre for instance by impregnating with a solution containing the original components for the formation of the one resin and the original components for the formation of another resin or a resin product.

It is surprising that the presence of the dye-stuff does not disturb the refining operation and does not interfere with the finishing effects and that, moreover, the presence of artificial resin does not interfere with the dyeing, but in the contrary under certain conditions leads to dyeings of improved properties for instance with regard to genuineness.

The following examples show preferred modifications of the invention.

Example 1

120 g of dimethylol urea, 6 g of ammonium sulphate, 14 g o.o'-benzidine sulpho acid—2 times nitro-m-phenylene di-amine are solved to 1000 cm³ water, the textile material is impregnated with this solution, squeezed, dried and then heated to 130° C. to form the resin. A bright orange dyeing and at the same time an excellent finishing effect result.

Example 2

60 g of dicyanogen-di-amide, 98 g of formaldehyde of 40%, 10 g of poly-vinal alcohol, 6 g of 1.3.8.naphthol-di-sulpho acid, 8 g of cupric sulphate, 5 g of tartaric acid are solved in 1000 cm³ of water and treated as described in Example 1. A blue dyeing results.

Example 3

40 g of phenol, 66 g of formaldehyde, 8 g of waste sulphite liquor, 6 g of ammoniac of 25% 4 g of β -naphthol-di-sulpho acid 2.6.8 are solved in 1000 cm³ of water and treated as described in the preceding examples. A red dyeing and at the same time excellent finishing effects, as reduced swelling ability a. s. o., result.

Example 4

A fabric treated in the manner usual in the textile industry with carbazol-oxy-carbonic acid arylide is dried and then subjected to a treatment in a bath of the following composition:

For 1000 cm³ of water 12 g of 4-amino-1-benzoyl-amine-3-methoxy-6 methylbenzene, prepared by the usual diazotizing, 100 g of urea, 140 g of formaldehyde of 40%, 6 g of acetic acid, 2 g of ammonium phosphate. The textile material is impregnated with this solution and the dye-stuff is developed to a genuine dark blue with simultaneous applying of the substance forming the artificial resin. By a thermal subsequent maturing, the artificial resin is finally formed.

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