

Thermoset leather finish

It was reported that thermoset products based on monoethylenically unsaturated vinyls and amides can be used for partially replacing casein in glazable finish.¹ The work was extended for replacing casein completely in the top coat.

A thermoset polymeric product based on monoethylenically unsaturated monomer/s was prepared using a plasticizer type of emulsifier, chain transfer reagents like amines, oxidative or redox catalysts like sulphite-persulphate. During the preparation of the product protein or alignate were used as stabilizers. The product may contain silicones for improving glazability of the leather. Gloss giving properties were improved by incorporating shellac during/after polymerization.

The dyed crust was 'cleared' with the dilute solution of 30 parts of ammonia and 70 parts of isopropanol in one litre of water. The leather thus cleared was seasoned with a coating formulation consisting of (a) a suitable dye—10 g. (b) Hilec Dark Brown 26—10 g. (c) Eukosol binder U—100 g. (d) egg albumin—50 g. (e) 10% casein—50 g. (f) milk—50 ml. (g) T.R.O.—50 ml. (h) diethylene glycol—5 ml. The total volume was made upto 1 litre with water. One pad coat of the season was applied and the leather was dried. Two

full cross coats of the season was given for achieving good coverage. Then the leather was fixed with the dilute formalin (100 parts of formalin in 300 parts of water). The dried leather was given a top coat consisting of (a) thermoset binder (prepared by us)—100 g. (b) 20% shellac solution—20 g. (c) egg albumin—50 g. (d) milk—50 cc. (e) T.R.O.—5 cc. (f) diethylene glycol—5 cc. The total volume was made to 1 litre. The top coat was applied by spray (one full cross coat) and then the leather was dried. The dried leather was glazed. The glazability and the gloss of the glazed leather was compared to that of the leather which was topped with a coat containing Eukosol Binder U—100 g. in the place of thermoset binder in the above clear top formulation. It was observed that the use of thermoset binder in clear top produced good glazability and gloss giving characteristics. In addition to these improved properties, the leather topped with clear coat containing the thermoset binder had better wetrub fastness.

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T. NAGABHUSHANAM
K. J. KEDLAYA
K. PARTHASARATHY
M. SANTAPPA

REFERENCE

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