

Pengaruh perbedaan jumlah penambahan binder uretan dan berbagai motif embossing terhadap kualitas kulit reject = The influence of differences in addition amount of urethane binder and various embossing motives to the quality of rejected leather

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Abstrak

Rejected tanned leather is tanned leather product with damages of more than 30% of its total surface area, but can be improved by embossing. Embossing is the provision of patterns that influences the properties of articles and contributes to the closure of the defects on the surface of leather. This study aims to determine the influence of urethane binder and embossing motives to the quality of rejected leather for shoe upper applications. Variables investigated were urethane binder composition (100, 150, and 200 part in 1000 part of base coat) and embossing motives (crocodile, ostrich, shark fish, and milled motive). The quality of the leather was then tested in terms of organoleptic properties (feel, flexibility, visual appearance), mechanical properties (tear strength, tensile strength, elongation at break, rub fastness (dry, wet), adhesive strength of cover paint (dry, wet), and flexing resistance), physical properties (WVP and WVA), as well as morphology (SEM). The results showed that the addition of urethane binder and embossing patterns affect the quality of shoe upper leather, i.e. in general covering the leather defects and increasing the visual appearance (organoleptic properties), and changing the collagen network structure (based on SEM test). Visually preferred skin is skin with the addition of 200 parts of the urethane binder and crocodile patterned leather.

Kulit tersamak reject adalah produk dengan jumlah luasan kerusakan lebih besar dari 30%, namun dapat diperbaiki dengan embossing. Embossing adalah metode pemberian motif yang dapat mempengaruhi sifat artikel dan dapat memberikan kontribusi terhadap penutupan cacat-cacat pada permukaan kulit. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan binder uretan dan motif embossing pada kulit reject terhadap kualitas kulit bagian atas sepatu. Variabel penelitian terdiri atas jumlah binder uretan (100, 150, dan 200 gram dalam 1000 gram campuran lapisan dasar) dan motif embossing (kulit buaya, burung unta, ikan hiu, dan milled).

Pengujian

mutu kulit terdiri atas pengujian organoleptis (pegangan, kelembasan, kenampakan), mekanik (ketahanan sobek, kekuatan tarik, kemuluran, ketahanan gosok cat (kering dan basah), kekuatan rekat cat tutup kering dan basah, ketahanan bengkok), fisis (water vapor permeability (WVP), water vapor absorption (WVA)), dan morfologi (scanning electron microscopy (SEM)). Hasil penelitian menunjukkan bahwa penambahan binder uretan dan motif embossing berpengaruh terhadap mutu kulit bagian atas sepatu, yaitu secara umum dapat menutup cacat-cacat dan menambah keindahan visual dan mengubah struktur jaringan kolagen (hasil uji SEM). Secara visual kulit yang disukai adalah kulit dengan penambahan binder uretan sebesar 200 bagian dan bermotif kulit buaya.