

ABSTRACT

M. Sc. Thesis

AN INVESTIGATION OF PHYSICOMECHANIC FEATURES OF SOME ANIMAL MATERIAL

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In this research some strenght properties; such as tensile and tear strenght, have been investigated for vachette and sahtiyen leather types, which have been traditionally tanned with valone extract, in Karacasu, Aydın. And also the physicomechanical properties of leather goods in usage, have been investigated. For these aims vachette and sahtiyen leathers have been taken from three leather fabrics in the town. The leather samples used in physicomechanic tests have been cut by the help of leather sample obtaining methods and ten samples of vachette and sahtiyen leather have been gained. After that these samples have been conditioned for tests. Within these physicomechanic tests; the measurement of leather thickness, colour and hydrothermal stability have been done and the tensile, tear and stitch tear strength, distension of grain, flexibility, rub fastness and blob absorbing measurement tests have been applied.

Thickness rates measured 1,46 mm and 1,19 mm in vachette and sahtiyen leathers. It has been pointed out that both leather types have yellow and yellowish-brown colours in the result of colour measurement. It has been observed that hydrothermal stability is not high enough for the thermal applications for vachette and sahtiyen leathers. While tensile strength and elongation are suitable vachette leathers, this measurement has low rates in sahtiyen leathers in the point of saddlery leather. Both leather types are suitable in the point of tear and stitch tear strength rates for saddlery leather production. It has been observed that vachette and sahtiyen leather types have enough durability rates in distension of grain tests. There will be no problem in sandals, using in a short time, produced from vachette leathers but if used in a

long time we can observe cracking and puncture in leather grain. Sahtiyani leather grains are so sensitive for flexing in the usage of them and the risks of puncturing and tearing are high. In the measurement of rub fastness there is an acceptable rate of colour changing as a conclusion of wet, sweat and dry frictions in vachette leathers, but the colour changing, after the result of wet, sweat and dry friction tests, is high and unacceptable in sahtiyani leathers. After searching the test of blob in vachette and sahtiyani leathers, grains of vachette and sahtiyani leathers are low resistance to blob and absorbing the water easily. After drying, it has been observed that colour changing and blistering occurred.

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