

Advantages of using fatliquoring polymers over traditional oils

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Content

Increasingly stringent requirements make it difficult to select appropriate fatliquoring agents. Fatliquoring polymers are an alternative to traditional oils, i.e. they confer very good properties without affecting the degree of softness.

The aim of this paper is to delve into the application of several types of fatliquoring agents, and relate their physical-chemical properties to the properties they confer to the skin. Nine products of different nature were selected: vegetable and animal oils, lecithins, sulpho chlorinated paraffins, phosphoric esters, and fatliquoring polymers.

Degree of softness, dye intensity and penetration, weight, tightness and ageing were assessed. HLB of the fatliquor was used for product characterization. The fat attached to the skin was assessed by extractable fatty matter in skin. Product distribution in the skin cross section was determined by means of two staining tests, Sudan IV and methylene blue. These tests allow detecting the neutral part (Sudan IV) and the hydrophilic part (methylene blue) of the fat in the cross section.

Our results allowed relating the degree of softness to the penetration of the neutral part and to the HLB of the products. Sudan IV staining showed the distribution of the neutral part of the fats and the migration of these products at drying. Fatliquoring polymers improved the properties of conventional oils in terms of tightness, lightness, low extractability, and ageing.

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Keyword

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