

PRODUCTION OF NATURAL LEATHER PRODUCTS

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Annotation : *In this article, leather production, animal skins, which are the main raw materials of the leather industry, are divided into types according to their classification, importance, field of application. information about their chemical composition, chemical processing processes for obtaining leather from animal skins.*

Key words: *animal skin, derma, collagen, shoe leather, saddle leather, technical skins, clothing haberdashery leather.*

The first leather production appeared in the East. The Egyptians, Jews, and then the Romans learned to make leather parts of clothing, shoes, vessels and other utensils from leather. At the dawn of leather production, tree bark, ink nuts, oak acorns, alum, and salt were used as tanning materials. The East for a long time was ahead of the West in the development of tanning, the morocco leathers of Morocco and Turkey were especially famous. In Europe, the first leather factories began their work in France, Germany and England at the beginning of the 18th century (the very first of them was opened in 1749 in Alsace).

The term "tanning raw materials" should be understood as the skins of animals (both wild and domestic), fish, sea animals, reptiles, which are used for leather dressing. The skins of different animals differ from each other not only in their appearance, but also in their chemical composition, and therefore in their properties.

The chemical composition of the skin is inorganic and organic substances. Inorganic substances include minerals and water, and organic substances include fats, proteins, carbohydrates, hormones, enzymes, and vitamins. One of the most important components of the skin is a protein - collagen.

Collagen (translated as "giving glue") is the basis of the connective tissue of the animal and is responsible for its strength. These properties of collagen are due to the fact that it has the ability to swell in water, and if it is heated to a temperature of 50-60 ° C, it welds and becomes similar in properties to rubber.

In the production of a leather semi-finished product, the ability of collagen to combine with tannins is used, while changing its properties. As a result of a special treatment, collagen (and the leather raw materials in which it is included) become resistant to high temperatures, water and the action of microorganisms.

There are the following types of leather raw materials:

- small leather raw materials;
- large leather raw materials;
- raw pork;

- skins of reptiles;
- skins of fish.

Small leather raw materials are the skins of sheep, cattle calves, foals, goats, camels, as well as marine animals (nerpa, seal). Leather for clothing, haberdashery and shoe uppers are made from fine raw hides.

Large leather raw materials are the skins of horses, cattle, donkeys, camels, elks, deer and the skins of marine animals (whales and walruses). Large leather raw materials are used for the manufacture of saddle leather, chrome-tanned leather for shoes, leather for welts, technical types of leather.

Pig skin raw materials - skins of pigs (wild and domestic). The area of application of pig skin raw materials coincides with the area of application of large hides and skins.

There are various classifications of leathers, they are divided not only by age and type of animals from which they are obtained, but also by the methods of processing and coloring.

According to the type of leather raw materials, leather is divided into:

- leather from the skins of cattle, which in turn include sklizok (skin from the skins of unborn calves), calves (skin of dairy calves is the most valuable), outgrowth (skin from the skins of calves fed with plant foods), half-skin or half-skin (skin of calves over the age of 1 year), goby (skin from the skins of young animals), yalovka (leather from the skin of a cow), bullock (skin of a young bull), bull and buffalo (skins from bull skins are the heaviest and thickest).

Cattle skins are the most durable and elastic, with a beautiful measure, are widely used both for the production of clothing, footwear and leather goods, and for the manufacture of souvenirs.

- leather from goat and sheep skins, which include chevret (soft and viscous leather 0.6 - 1.2 mm thick), shagreen (rough and soft goat or sheepskin), morocco (thin leather, usually brightly colored), chevro (leather from the skins of young goats up to 1 mm thick), goat (leather from the skins of adult goats). Used for upholstery of furniture, clothing and leather goods.

- pigskins (thick skins, used for making clothes, saddlery and leather goods).

- horse skins, which include a foal (skins from the skins of milk foals), a colt-urogen (skins from the skins of foals fed on plant foods).

According to the purpose of the skin is divided into the following types:

- shoe leather;
- saddle leather;
- technical skins;
- clothing haberdashery leather.

Also, leather is divided into different types and according to the method of tanning.

Tanning is one of the most important technological processes, without which the production of leather is impossible. In the process of tanning, raw hides are treated with

solutions of special tanning agents, which makes the leather more plastic, durable, and wear-resistant.

There are the following types of tanning:

- tanning with chromium compounds (chrome);
- tanning with fats of fish and marine animals (fatty);
- tanning with wood extracts (vegetable);
- combined tanning (successive or simultaneous tanning with different types of substances);
- tanning with alumina salts (mineral).

When tanning the skin, you must first remove the remnants of muscle, hair, films and fat from the skin. After that, the skin is impregnated with special tannins, dyed and subjected to other types of processing in order to improve its properties. To remove hair from the skin, lime and ash or sodium sulfide are used. After the gilding procedure, the skins are washed and soaked in special acidic solutions.

Finishing includes dyeing, rolling, pressing, possibly also embossing, varnishing or plastic coating, sanding, waxing, special treatment for water resistance.

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