METHOD FOR TANNING AN ANIMAL SKIN

The present invention relates to an improved method for tanning an animal skin.

In one aspect, there is provided a method for tanning an animal skin comprising the following phases:

a) putting said animal skin in contact with a tanning bath comprising:

- water,
- at least one C_2-C_8 aliphatic dialdehyde in a quantity within the range of 2%-30%,
- at least one non-ionic surfactant in a quantity within the range of 0.1% - 20%,

said tanning bath having a pH within the range of 1 - 5 and a density within the range of 3 to 10°Bé;

b) bringing the pH of the tanning bath to a pH higher than 5 and lower than or equal to 8;

c) washing said skin, obtaining a tanned animal skin;

d) putting said tanned animal skin in contact with at least one tanning bath comprising:

- water,
- at least one C_2-C_8 aliphatic dialdehyde in a quantity within the range of 2%-30%,

said tanning bath having a pH within the range of 1 - 5 and a density within the range of 3 to 10°Bé and being substantially free of said non-ionic surfactant; the above percentages being weight percentages referred to the pelt weight of said skin.

The tanning method of the present invention can be advantageously used in field of tanning processes for the transformation of animal skins into leather.

The combination of manual, mechanical and physico-chemical operations through which animal skins are transformed into leather, is generally indicated as tanning cycle, or tanning process.

The objective of a tanning process (hereinafter tanning) is to confer irreversible stability to the

CLAIMS

1. A method for tanning an animal skin comprising the following phases:

a) putting said animal skin in contact with a tanning bath comprising:

- water,
- at least one C_2-C_8 aliphatic dialdehyde in a quantity within the range of 2%-30%,
- at least one non-ionic surfactant in a quantity within the range of 0.1% - 20%,

said tanning bath having a pH within the range of 1 - 5 and a density within the range of 3 to 10°Bé;

b) bringing the pH of the tanning bath to a pH higher than 5 and lower than or equal to 8;

c) washing said skin, obtaining a tanned animal skin;

d) putting said tanned animal skin in contact with at least one tanning bath comprising:

- water,
- at least one C_2-C_8 aliphatic dialdehyde in a quantity within the range of 2%-30%,

said tanning bath having a pH within the range of 1 - 5 and a density within the range of 3 to 10°Bé and being substantially free of said non-ionic surfactant;

the above percentages being weight percentages referred to the pelt weight of said skin.

2. The method according to claim 1, wherein the ratio between the concentration of said C_2-C_8 aliphatic dialdehyde in the tanning bath of said step (d) and the concentration of the C_2-C_8 aliphatic dialdehyde in the tanning bath of said step (a) is equal to or lower than 1/1.5, more preferably equal to or lower than 1/2.

3. The method according to claim 1, wherein said

C_2-C_8 aliphatic dialdehyde is selected from: glyoxal, malonic dialdehyde, succinic dialdehyde, glutardialdehyde, adipinic dialdehyde, pimelic dialdehyde or mixtures thereof.

4. The method according to claim 1, wherein said C_2-C_8 aliphatic dialdehyde is glutardialdehyde.

5. The method according to any of the previous claims, wherein said non-ionic surfactant is a primary alcohol having from 8 to 22 carbon atoms, said alcohol being ethoxylated (EO) or ethoxylated/propoxylated (EO/PO).

6. The method according to any of the previous claims, wherein said phase (a) of putting said animal skin in contact with said tanning bath has a duration within the range of 1 - 7 hours, preferably 1.5 - 4 hours.

7. The method according to claim 1, wherein the weight percentage ratio between said tanning bath and said animal skin is within the range of 20% - 1000%, preferably 30% - 300%.

8. The method according to any of the previous claims, wherein said animal skin is a pickled skin.

9. The method according to any of the previous claims, wherein said animal skin is selected from: sheepskin, goatskin, cow-skin, horse-skin, pigskin, deerskin, kangaroo-skin, reptile-skin, ostrich-skin, preferably sheepskin, goatskin and cow-hide.