

UNITAN LEATHER TANNING AGENTS / Formulae

4. Metal Free Shoe Upper - Vegetable Tanning (UNIQUE CHD)

Pickled and split skin to 1,8 mm. % Limming weight or pickled.

TANNING

	50%	Pickled bath	pH: 3,8/4,0 °be: 6
4-6 RPM	1,0 / 2,0%	Dispersant naftalensulphonic	Run 30 min / pH: 3,9
Add	4%	UNIQUE JR	Run 90 min
Add	10%	UNIQUE JR	Run 60 min
	0,5%	Sulphated neat's foot oil	Run 20 min
	0,1%	Fungicide	Run 5 hs. Then automatic (5'/hs.) over night till complete penetration.
The next day add	150 %	Water 35°C	Run 10 min
	0.5%	Formic Acid	Run 30 min -Drain-
Wash	200 %	Water 25°C	
	0.5%	UNICLAR	Run 30 min

Drain-pile rest 24 hs (cover with nylon) – drain – shave.

RETANNING and FATLIQUOR (% over shaved weight)

	300%	Water 35 °C	
	1%	UNICLAR	Run 30 min - Drain / Wash / Drain -
	70%	Water 35 °C	
	0,3%	Sodium formiate	
	0,3%	Sodium bicarbonate	Run 30 min/pH= 4,3 / 4,5
	2%	Glutaraldehyde	Run 60 min
	5%	UNIQUE CHD	
	X%	Dye stuff	Run 30 min
	10%	UNIQUE CHD	Run 90 min
Add	100%	Water 55°C	Run 5 min
	2%	Sulphited oil	
	1,5%	Raw neat's foot oil	
	3,0%	Sulphated neat's foot oil	Run 60 min
	0,7%	Formic Acid	Run 30 min pH: 3,6 -Drain-
Wash	300%	Water 35°C	
	0,5%	UNICLAR	Run 10 min - Drain -

Unload / Pile / Drain / vacuum 50°C / 1 min / hang / conditioning.