RUGBY BALL LEATHER*

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Introduction

There is a very good and steady demand for rugby balls from countries like Australia, United States of America and Canada. The ball should not go out of shape and the dye should penetrate at least 2/3rd of the thickness of the leather. The leathers are to be aniline-finished. It is found that vegetable tanned leathers give most satisfactory results if tanned and finished, taking care to incorporate the desired properties. It was also found that for shape retention etc. leathers made from bag tanned cow hides give the most satisfactory results. A process has been developed to make such leathers.

Raw material

Bag tanned cow hides of average weight of 10 kg. without major grain defects are taken and rounded into butts and offals. Only butts are taken for processing. Usually about 45% of the total weight is got as butts. They are washed for 15 min. twice and are sammed. The butts are shaved to 3.5 mm., weighed and brushed with 0.25% oxalic acid (10% solution) to remove stains. They are rinsed in water and taken for stripping.

Stripping

The butts are stripped in a drum for 40 min. with the following :

Borax	2%
Water	100%

Bleaching

Oxalic acid	0.5%
Syntan PN CLRI	0.5%
Water	100%

The drum is run for 30 min. and the bath is drained.

Retanning

Wattle GS Powder	5%
Vernatan OS (COLOUR CHEM)	5%
Water	75%

The drum is run for 30 min. and 100% water is now added. The drumming is run for another 30 min. and the butts are piled overnight.

Dyeing & fatliquoring

The butts are dyed initially with the following basic dyes in a drum.

Rodamine (ICI)	0.12%
Auromine O (ICI)	0.37%
Acetic acid	0.5%
Water at 45°C	100%

* Process demonstrated at Jullundurduring August 1980.

† REC, Jullundur.

The dyes are made into a paste with acetic acid and then dissolved in hot water. The drum is run for 10 min. and the bath is drained. The goods are washed for 10 min. in 100% water and are redyed.

Redyeing

Acid Scarlet 3R (SANDOZ)	1.2%
Ranomil Red RS (SUHRID-GEIGY)	0.5%
Tamol NNOL (BASF INDIA)	1.5%
Water at 45°C	100%

The drum is run for 10 min. and the following fatliquors mixed together and emulsified with hot water are fed into the dye bath.

Alankrol STF (ALA CHEMICALS)	5.0%
Alankrol SO ,,	4.25%
Groundnut oil	1%

The drum is run for 30 min. and the bath is fixed using 0.5% formic acid given as 10% solution. The drum is run for a further period of 10 min. and the bath is drained. The butts are piled. Next day, they are sammed, set and nailed wet on boards. When dry, they are taken off the boards, staked lightly and finished.

Finishing

The butts are sprayed with the following season.

Vernasien Red (COLOUR CHEM)	15 g.
Eukanol Binder IM (,,)	175 cc
Colour Chem Lustre K	25 cc
Colour Chem softener LG	15 cc
Water to make	1000cc.

Two cross coats are given and the leathers are dried. They are now sprayed with the following :

Corial Lac EMG (BASF)	100cc
Water	50 cc.

The leathers are dried and plated if necessary and measured.