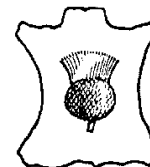




J Hewit & Sons Ltd

TANNERS AND LEATHER DRESSERS



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ARCHIVAL LEATHER

Vegetable tanned leathers have always been prone to acid deterioration, and a great deal of energy has been put into improving the performance of bookbinding leathers over the last fifty years. There are two different groups of vegetable tannins - the hydrolysable and condense tannins. Leather tanned with hydrolysable tannins have for a long time had a reputation of greater durability, and it is for this reason that the vast majority of bookbinding leathers are tanned using these tannins.

Work in the early 1930's showed that hydrolysable tannins had a far greater buffer salt content, and it was to check on the buffering capacity of the leather that the PIRA test was invented. A long-term trial carried out between 1935 and 1970 on bound books gave very inconclusive results and it was realised that further research would have to be carried out. The British Leather Manufacturers Research Association together with several libraries and tanneries have been carrying out extensive trials since then to improve the durability of bookbinding leather.

In America in the 1940's it was discovered that vegetable tanned leather retanned with aluminium gave exceptionally good resistance to ageing in a gas chamber containing a moist acid vapour and the BLMRA decided to investigate the use of this leather for bookbinding. Aluminium imparts tremendous stability to vegetable tanned leathers as can be shown from the fact that the retannage with aluminium increases the shrinkage temperature from 75-80 C to 125 C. The increased stability of the tannage can be demonstrated in the gas chamber where leather retanned with 2% aluminium after 24 weeks has retained 60% of its tear strength compared with 20% of vegetable tanned leather and semi-chrome leather. All the leather except the semi-alum leather had lost their resistance to grain scuffing and flexing. The semi-alum tannage also buffered the leather to a far greater extent ending the 24 week trial with a pH 3.0 compared to pH 1.7 for the other leathers, all the leathers starting at a pH of roughly 4. In their conclusion the BLMRA stated that vegetable tanned leather for archival bookbinding should be retanned with 2% aluminium on leather weight.

These results were published in 1984, and since then we have been working on this leather, not only to meet these standards but also to produce a leather that is acceptable to the bookbinder, without the early problems experienced of water-repellency and springiness.

Archival Chieftain

The raw skins originate from India and the surrounding areas. The skins have a natural shrunken grain, similar to traditional Levant grain, with a natural polished finish. This leather is retanned with the addition of aluminium salts in order to produce an archival tannage with outstanding durability. The leather is aniline dyed and has a semi-transparent finish.

Approximate size $0.64 - 0.72\text{m}^2$ (7 - $7\frac{3}{4}\text{ft}^2$)

Archival Calfskin

A Scandinavian or Mexican calfskin tanned by ourselves with myrabolans, a hydrolysable tannin. This leather is retanned, dyed and left with an aniline finish as with our normal Bookcalf. Compared with our normal production it has a bolder grain and is less likely to scuff with handling.

Approximate size $0.65 - 0.84\text{m}^2$ (7 - 9ft^2)

Both these leathers are available in all 15 standard colours, however, due to the reaction of myrabolans with aluminium, it must be pointed out that the natural calfskin is a pale yellow colour rather than the cream colour of our normal production.

Craft Project BE-S2-3432 'Development of Archival Leathers'

We have now published an article on the two year Pan-European project, which investigated the 'Archival Leather' Issue. The study of these issues was carried out by a group of tanners, binders and research bodies from the UK, Germany, Italy and Greece.

This article can be downloaded as a pdf file from our web site.