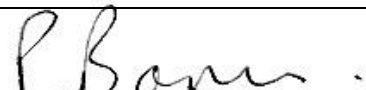


Laboratory Accreditation Programmes

| | |
|--|-----------------------|
| Schedule to | |
| CERTIFICATE OF ACCREDITATION | |
| New Zealand Leather & Shoe Research Association | Client No. 251 |
| PO Box 8094, Hokowhitu, Palmerston North, 4446 Fitzherbert Science Centre, 69 Dairy Farm Road , RD 4, Palmerston North, 4474 Telephone 06 355-9028 www.lasra.co.nz | |
| Authorised Representative Mr Brendon Hayman Quality Manager | |
| Programme Chemical Testing Laboratory Accreditation Number 554 Initial Accreditation Date 27 March 1995 | |
| Conformance Standard NZS ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories | |
| Testing Services Summary 2.23 Leather 2.81 Other Specified Inorganic Material | |
| Key Technical Personnel Mr Brendon Hayman 2.23, 2.81 | |

| | | |
|---|----------------------------|-------------|
| Authorised: General Manager  | Issue 41 Date: 12/11/18 | Page 1 of 4 |
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Schedule to

CERTIFICATE OF ACCREDITATION

 New Zealand Leather & Shoe Research Association
 Chemical Testing Laboratory

Accreditation Number 554

SCOPE OF ACCREDITATION

2.23 Leather

(a) Leather - wet and dry

| | |
|--|----------------------------------|
| Chromic oxide (AAS) | In-house method |
| Chromic oxide (iodometric titration) | ISO 5398-1:2007 |
| Determination of pH | BS EN ISO 4045:2008 |
| Free formaldehyde | ISO/TS 17226:2008 |
| Hexavalent chromium | ISO 17075.2:2017 |
| Nitrogen and protein | ISO 5397:1984 (modified for wet) |
| pH of surface | In-house method |
| Preparation of sample by grinding | ISO 4044:2008 |
| Shrinkage temperature | ISO 3380:2002 (modified) |
| Substances soluble in dichloromethane (grease and FFA) | ISO 4048:2008 |
| Volatile matter | ISO 4684:2005 |

In accordance with ISO 13365:2011 using high performance liquid chromatography and based on the manufacturers methods indicated

Determination of the preservative (TCMTB, PCMC, OPP, OIT) content
 Methylene bis-thiocyanate
 Ortho phenyl phenol
 Other fungicides
 Parachlorometacresol

(b) Pickled pelts

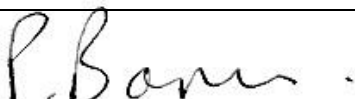
In accordance with In-house methods except where otherwise indicated.

| | |
|--|--------------------------|
| Calcium sulphate: total protein ratio | |
| Iron (AAS) | |
| Shrinkage temperature | ISO 3380:2002 (modified) |
| Soluble protein: total protein ratio (calculation) | |
| Nitrogen and protein | ISO 5397:1984 |

In accordance with ISO 13365:2011 methods using high performance liquid chromatography and based on the manufacturers methods indicated

Determination of the preservative (TCMTB, PCMC, OPP, OIT) content
 Methylene bis-thiocyanate
 Ortho phenyl phenol
 Other fungicides
 Parachlorometacresol

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 General Manager



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New Zealand Leather & Shoe Research Association
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(c) Salt cured skins

Dichlorophen 2,2' – methylenebis (4-chorophenol) In-house via HPLC

In accordance with In-house methods except where otherwise indicated.

Free acid expressed as Boric acid

Sodium chloride

Sodium metabisulphite

Monier - Williams

Volatile matter (modified)

ISO 4684:2005

(e) Other related products – Pickled pelts (expressed and extracted liquors)

In accordance with In-house methods

Acid content

pH

Sodium chloride

(e) Other related products – Woolskins

Free formaldehyde in woolskins ISO/TS 17226:2008 part 1

2.81 Other Specified Inorganic Material

In accordance with In-house methods based on the references indicated.

(i) Sodium sulphide and sodium hydrosulphide

Iron (AAS)

Purity (iodometry)

(ii) Chrome tanning powder

Basicity

SLTC:SLT 6

Chromic oxide

SLTC:SLT 6

Hexavalent chromium

ISO 17075

Insolubility

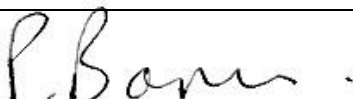
In-house method

pH

SLTC:SLT 6

(iv) Boric acid

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CERTIFICATE OF ACCREDITATIONNew Zealand Leather & Shoe Research Association
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SCOPE OF ACCREDITATIONH₃BO₃ Purity
Moisture (by oven drying)**(v) Sodium chloride**Moisture (by oven drying)
Sodium chloride (NaCl) Purity**(vii) Process liquors**

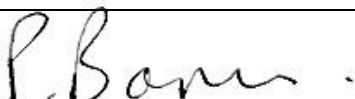
| | |
|-----------|---------------------|
| Calcium | AAS methods |
| Chromium | ISO 5398 (modified) |
| Chromium | AAS methods |
| Magnesium | AAS methods |
| Sodium | AAS methods |

(vii) Process chemicals

Sodium metabisulphite

References:

SLTC Society of Leather Technologists and Chemists Official Methods of Analysis 1996

Authorised:
General Manager

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