

LENGTH AFTER CARDING (LAC)



Whilst there has been a test method for single fibre length (IWTO DTM 5) available for many years, the test has no sampling regulations, and is both slow and expensive to carry out. The results from the test are notoriously unreliable on scoured wool and its use in this area has been banned by IWTO and the method has now been downgraded to a draft which can only be used on yarns and yarns recovered from fabrics. There are several other methods available for measuring fibre length and these are discussed in [Info-bulletin 1.3](#).

New Zealand led the way in developing a test method and sampling regulations to allow determination of the length of scoured wool. The Length After Carding (LAC) test emulates the harshest aspects of commercial semi-worsted processing, and has proven extremely reliable ([Info-bulletin 1.2](#)). Until mid 2007, SGS Wool Testing Services remained the only commercial core test laboratory in New Zealand with this equipment installed on their own premises and able to certify this test, although a new line had been installed in Australia. In trials with WRONZ, and then their successor, Canesis, over a decade we have been able to consistently obtain LAC barbe results agreeing within 1 to 2 mm on sound wools.

Samples are taken on-line in the scour by a specially-designed spear which takes tufts from the press during loading of every bale. Since no way has yet been found to take full-length samples from high density packs without damage to the wool, samples are taken in triplicate before pressing, and two of the three samples are kept in secure storage in the event of a checktest or retest being requested.

In the laboratory the sample is conditioned, spread over a table, and a carefully-controlled quantity of standardised carding lubricant added. After further conditioning the sample is fed through a standardised sample card (which incorporates a 1m diameter swift). The carded web is then gilled 3 times in a standard gillbox, before specimens are taken and twisted up for subsequent measurement (after further conditioned storage) on an Almeter



FOR ENQUIRIES

Email us at NZ.wool@sgs.com

Or contact us at:

48 Kemp Street, Kilbirnie

PO Box 15062

Wellington, New Zealand

Tel: +64.4.387.8565

Fax: +64.4.387.8651

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