

MEASUREMENT OF VARIATION OF WOOL
FIBRE DIAMETER USING WEIGHT-BIASED SAMPLES

C.H. Park, J.I. Raw and J.L. Woo*

Dept. of Textile Engineering, Inha University,
Inchon, 402-751, Korea

* Dept. of Textile Engineering, Kyung Hee University,
Yongin, 449-701, Korea

Abstract

Effect of the variability of fibre diameter on yarn irregularity, especially for higher counts, is well recognised and an optical scanning device "Fidivan" is known to exist.

Instead of obtaining the whole distribution with a sophisticated instrument, a variance estimate for the fibre diameter may be determined using weight-biased samples on the existing air-flow apparatus, e.g, WIRA meter.

A simple DIY-style device using centrifugal force provides the required weight-biased sampling.

Resulting precision and accuracy of the measured data point to the excellent practicality and the cost effectiveness of the proposed procedure.