

Dr Bill Cooke

Dr Bill Cooke joined Courtaulds Ltd in 1963 and after completing a BSc in Textile Engineering at Manchester University moved to British Celanese where he worked in Technical Sales and Product Development. After gaining production experience in tyre cord manufacture, filament yarn extrusion, jacquard weaving and warp knitting he worked as part of the team developing the knitwear (fully fashioned and cut-and-sew) and double jersey markets for High Bulk Tricel.

Following his industrial experience he carried out research and development and taught Knitting Technology and Design at Manchester University (UMIST), retiring as Course Director and Senior Lecture in 2004.

His main areas of research and expertise include stitch bonding, double jersey knitting, quality control in knitting, fabric performance, fabric wear and pilling, medical textiles and the use of optical microscopy and the SEM (scanning electron microscope) to identify the causes of fibre abrasion, fibre fracture and fibre fatigue.

Selected Research Publications

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| Cooke | J.Text.Inst., Vol.73, No.1, 1982, 13-19. The Influence of Fibre Fatigue on the Pilling Cycle, Part 1: Fuzz Fatigue. |
| Cooke | J.Text.Inst.,Vol.74, No.3, 1983, p101-108 The Influence of Fibre Fatigue on the Pilling Cycle, Part 2: Pill Growth. |
| Cooke | J.Text.Inst., Vol.75, No.3, 1984, p201-211, The Influence of Fibre Fatigue on the Pilling Cycle, Part 3: Pill Wear-Off and Attrition. |
| Cooke | Text.Res.J., Vol.55, No.7, 1985. p 409-414 , Pilling Attrition and Fatigue. |
| Cooke and Assimakopoulos | Tex.Res.J., Vol. 55, No.8, 1985, p452-460, A Study of the Elastic Properties of Twill Warp Knitted Elastic Fabrics. |
| Cooke and Assimakopoulos | Tex.Res.J. Vol 55, No.8, 1985, p561-566, A Study of the Elastic Properties of Modified Twill Warp Knitted Elastic Fabrics. |

- Cooke and Kamal Text.Res.J., Vol. 56, No.10, 1986, p679-682, The Effect of Twist Factor on the Knitability of Combed Cotton Yarn.
- Cooke and Lomas Fibre Damage in Ancient Textiles, Textiles in Northern Archaeology, NESAT III, 1987, p 215-226.
- Amirbayat and Cooke Text.Res.J.,1989, Vol 59, No 5, p469-477 Changes in the Surface Properties of Fabrics During Wear.
- McLeod, Cooke and O'Brien Mode of Failure Analysis for the Surgicraft ABC Prosthetic Ligament, Plastics and Rubber Institute Conference Polymers in Extreme Environments, Nottingham, July 1991, p 8/9-1/8-10.
- McLeod, O'Brien and Cooke. Structural Integrity of the ABC Ligament Following Clinical Implantation. A Biomechanical Perspective through Mode of Failure Analysis, European Society of Biomechanics, Proceedings of the 8th. Meeting, June 1992,p113.
- Mowbray, McLeod Cooke and O'Brien Early Failure in an Artificial Anterior Cruciate Ligament Scaffold, The Knee, Vol 3, Issue 3, 1996, p 35 40.
- Cork, Cooke and Wild The Measurement of Twist Angle Using Image Analysis, Archaeometry, Vol. 38, no 2, 1996, 337-345.
- Jones, Carr, Cooke An Investigation of the Photo-Oxidation of Wool Using FTIR Spectroscopy and FT Raman Spectroscopy, Textile Research Journal, 1998, p739.
- Cooke, Dias and Gandhi. Knitting Green Fibres, Textile Institute World Conference, Feb. 1999, Chennai, India.
- Cooke and Potluri. Modelling the Mechanical and Fatigue Properties of Anterior Cruciate Ligament Protheses, 2001 International Textile Congress, Terrassa, Spain, June 2001.
- Potluri and Cooke Designing Carbon-Polyester Braids for Ligaments, Journal of Textile and Apparel, Technology and Management, Volume 3, Issue 2, 2003.

Books

Hearle, Lomas and Cooke Fibre Failure and Wear of Materials. Ellis Horwood Ltd. 1989.

Hearle, Lomas and Cooke Atlas of Fibre Fracture and Damage to Textiles, second edition, Woodhead Publishing, 1998,.