

**New USTER® ZWEIGLE HL400: High testing speed, high reproducibility**

Outstanding improvements in yarn hairiness measurement are offered by a new testing and classification instrument developed by Uster Technologies. The USTER® ZWEIGLE HL400 operates at speeds eight times faster than existing systems, with unrivalled levels of measuring accuracy and repeatability.

Precise analysis of yarn hairiness is vital for many textile applications, as hairiness has a significant influence on both the appearance and durability of fabrics, as well as impacting on the productivity and efficiency of subsequent processing stages. Experience with textile fabrics has shown that 15% of unacceptable fabric defects – such as pilling, for example – are caused by high levels of hairiness or hairiness variations. The hairiness level is also an important parameter in yarn profiles used as the basis for the buying and selling of yarns.

Uster Technologies, the world leader in high-technology quality measurement instrumentation, already has a strong foundation in hairiness testing: the world-renowned USTER® TESTER family, featuring the special OH module, has been acknowledged for the past 20 years as the basis for the USTER® Hairiness H industry-standard value. Some 80% of the latest USTER® TESTER 5 models are now equipped with this module, which serves as an early-warning system for potential production problems.

Complementing this, and taking hairiness testing to new levels of performance, the USTER® ZWEIGLE HL400 is the result of intensive development work by USTER® specialists. This improvement was made since the acquisition in July last year of the product range of Zweigle, the German maker of yarn testing instruments, which included the established Zweigle hairiness testing system.

The most striking feature of the new USTER® ZWEIGLE HL400 is its speed. It operates at 400 m/min, compared to the 50 m/min throughput of the previous Zweigle system and today's competitive systems. Zweigle hairiness can now be measured at the same speed as the USTER® TESTER 5, offering enormous benefits in productivity. This is combined with the precise engineering and accuracy in measurement that typifies the USTER® product range.

Richard Furter, Head of Textile Technology at USTER® and an acknowledged industry expert in quality testing, stated: "The hairiness characteristics of a finished product can be affected by

several individual factors, including yarn twist level, spindle speed and ring traveler wear, so spinners need reliable information about the length and number of protruding fibers to allow them to optimize both the performance of their spinning frames and the quality of the yarn being produced. And today, as compact spinning technology becomes more popular with spinners, measurement of both USTER® hairiness and Zweigle hairiness values is vital to allow spinners to be in full control of the quality of the yarns they produce. The USTER® *TESTER 5* with OH module, along with the new USTER® *ZWEIGLE HL400*, is the only way to obtain the required data. This latest instrument provides the vital S3 value – the number of fibers protruding by 3mm or more – which is the main quality benchmark for a compact-spun yarn and an indicator of any possible problems with a frame's compacting performance.”

The USTER® *ZWEIGLE HL400* provides highly-accurate measurement and classification of hairiness, allowing in-depth yarn engineering and problem-solving at the initial manufacturing stage. Together, the USTER® *ZWEIGLE HL400* and the USTER® *TESTER 5* with OH module provide comprehensive and perfectly-integrated solutions for all hairiness testing requirements and afford users with accurate and dependable results.

CEO of USTER®, Dr. Geoffrey Scott, commented: “The Zweigle acquisition strengthened the overall position of Uster Technologies in yarn testing and certification, as well as providing customers with a single source for all their laboratory testing needs. Zweigle products now integrated into the USTER® range also include the USTER® *ZWEIGLE FRICTION TESTER 5* and USTER® *ZWEIGLE TWIST TESTER 5*, among others. Future editions of the USTER® *STATISTICS* global quality benchmarks will include data from USTER® Zweigle-based instruments, to enable product quality to be correlated with internationally-recognized standards.”