

Short abstract proposal: Development of calibration method for short span compression

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Short span compression (SCT) is used extensively for the quality characterization and marketing of linerboard for use in corrugated containers. Repeatability and reproducibility for this measurement is a frequent concern for using the values to meet product marketing specifications. Comparison between instruments is obfuscated by the inherent variability in paper samples. This project proposes to develop artificial calibration strips which will have a high uniformity allowing accurate assessment of instrument R&R. The material must have an approximate comparable elastic modulus and strain- to-failure emulating typical paper behavior. Experience with composite pigment/polymer films have shown that a suitable combination of binder and pigment can be selected to approximate the compression stress-strain behavior of paperboard. Such materials can be prepared in thin film strip form and be tested in conventional SCT instruments.