

Short abstract proposal: Instrumented quantification of towel-tissue softness

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July 2012

Considerable effort is expended in optimizing tissue softness through adjustment of the creping process, selection of furnish, addition of wet-end chemicals, etc. Most tissue quality assessments rely on a subjective panel of experts to assess the tactile behavior of tissue. This “hand-feel” property for tissue is thought to be a combination of surface friction and flexibility of the sheet. Several instrument developers have devised testing methods with some partial acceptance that emulate the tactile experience through mechanical measurement of tissue samples. IPST in 1993 has developed an ultrasonic wave transmission method since commercialized by Sonisys LLC, that purports to quantify tissue stiffness through the analysis of the transmission of sound through the sheet. IPST has also recently acquired the: “Handle-o-meter” produced by the Thwing-Albert Company. What is of interest here is to compare results from the two instruments on the same sample set representing a range of quality of tissue softness. Results would validate both techniques for adaptation by the industry to provide a more reliable testing method for quality and process control replacing subjective evaluation.