

S3.4.2 UNIFORMITY COMPARISON OF SELECTED SPUNBOND FABRICS

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Spunbond fabrics are used in many filtration media designs to provide support and protection for the more fragile micro-glass and synthetic media layers. The uniformity of the fiber matrix in the spunbond fabric plays an important role in the long-term performance of the filter. Thin spots will not have the strength to protect the media layers during perforating or when pressure builds during use, and thick areas will tend to impede fluid flow and create inconsistencies in pleating. Although visually it is possible to qualitatively assess spunbond web uniformity, the industry has not defined an accepted methodology to quantify web uniformity with hard data. During a past AFS conference, a methodology was presented that utilizes the variations in spunbond thickness, basis weight and air permeability to create a composite index that can be used to quantify and compare web uniformity. This presentation will discuss the results of a recent study utilizing this same methodology to compare commercially available nylon and polyester spunbond fabric uniformity.