in the warp, sample 9 performed better due to the existence of Kevlar®/polyester yarn in the weft. Sample 9 reached the abrasion resistance requirement for level 1 in zones 1, 2, 3 and 4.

Sample 7, with 59 tex cotton/Cordura® in the warp and weft, met the standard requirement for level 1 only in zone 4 by resisting for 1.33 s against impact abrasion. Sample 8, with coarser 92 tex cotton/Cordura® in the warp and weft met the standard requirement for level 1 in zones 3 and 4 with 2.37 seconds, implying that coarser yarns improved the resistance against impact abrasion.

The results of the current study will also provide an insight for the selection of fabrics for protective denim clothing utilised in other application areas such as workwear and sportswear. For the extension of this study, comfort properties of the fabrics designed will be examined.

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