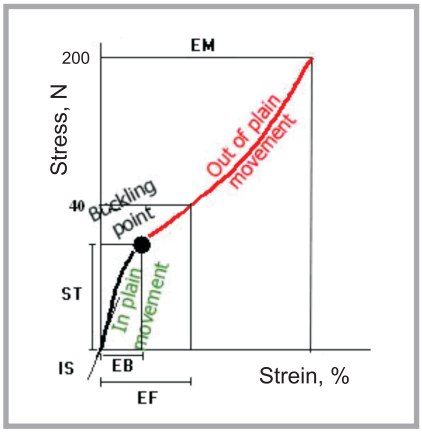

Figure 14. *Concentrated loading curve.*

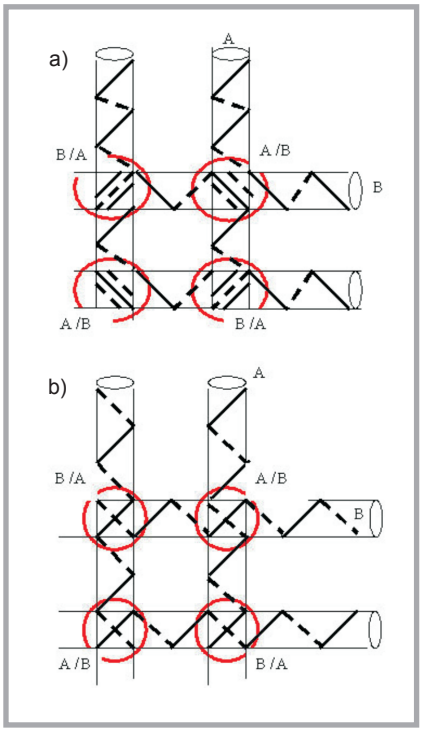

Figure 16. *Contact points and twist directions; a) Twist direction for both (warp and weft) is the same (Z-Z). b) Twist direction for warp and weft is not the same (Z-S).*

effective on fabric mechanical behaviour.

- The yarn pull-out force, fabric formability and fabric buckling force were greater for fabrics in which the warp and wefts are unidirectional in the twist direction.
- Among the group in which the warp and weft twist directions were the same, the maximum pull-out force, maximum formability and maximum buckling force belong to the fabrics in which the warp and weft yarns at the crossing points make a nesting angle of around zero degrees.
- The higher buckling point, pull-out force, fabric formability and initial slope of the 45° bias sample indicate higher rigidity in yarn sliding in the case of fabrics with a unidirectional twist direction, causing monotonous in-plane and out of plane deformations.

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