

FIG. 1. Analytical versus experimental compression stress-strain curves for series *s4* with  $30 \text{ kg/m}^3$  (a) and  $60 \text{ kg/m}^3$  (b) of fibers

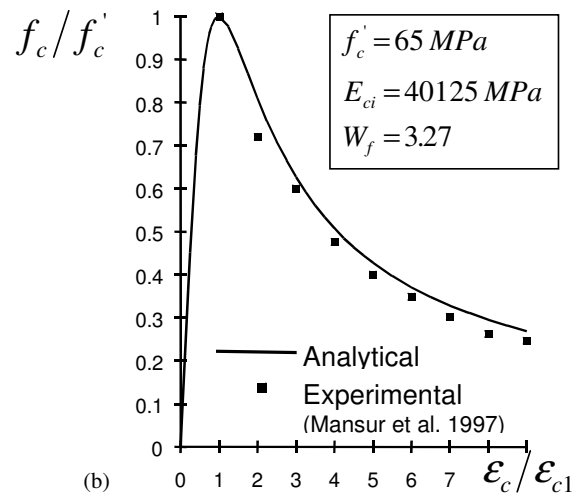
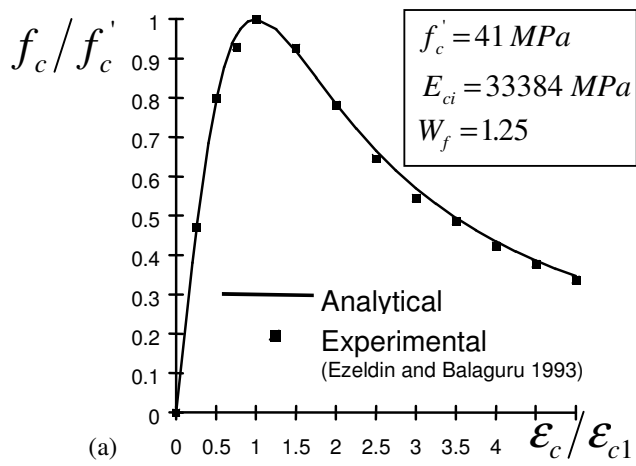


FIG. 2. Analytical versus experimental compression normalized stress-strain relationship for fibers 30/50 and with aspect-ratio of 60

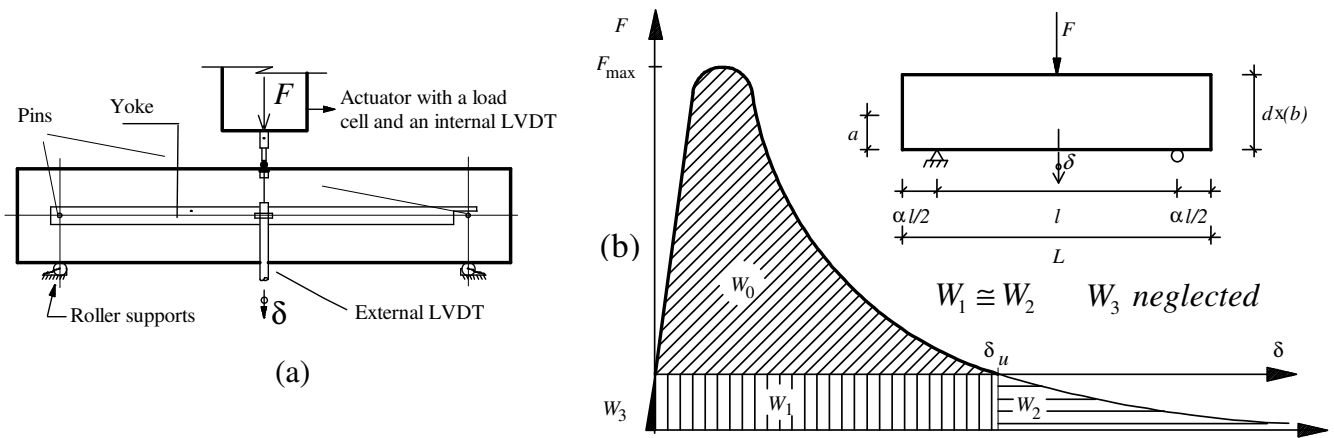


FIG. 3. Setup of flexural test on notched beam (a) and schematic representation of fracture energy evaluation (b)

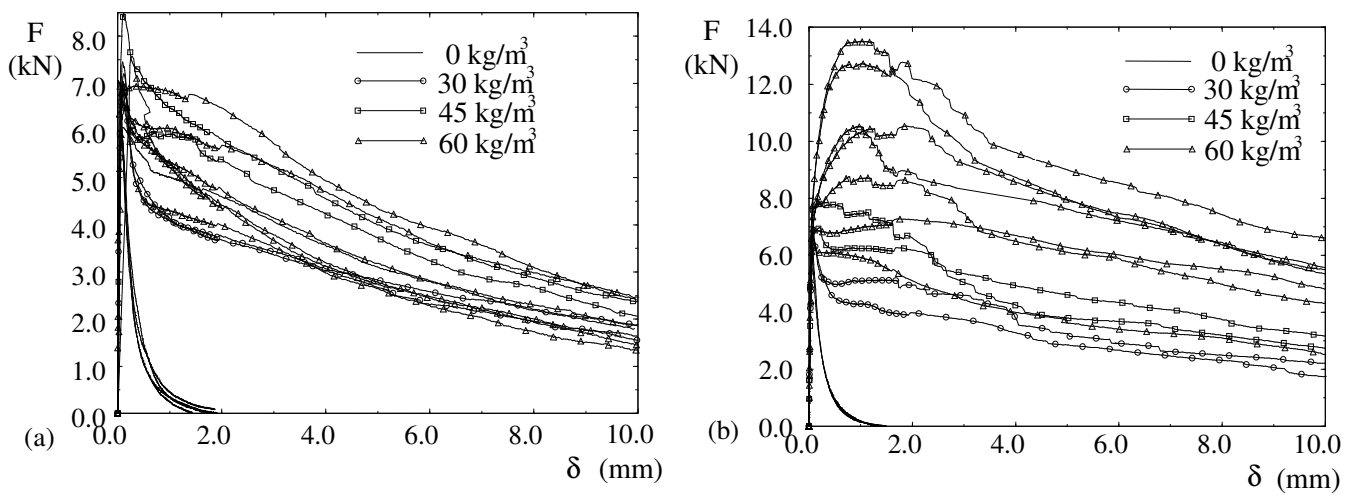


FIG. 4. Load-displacement relationship obtained in three-point bending tests of the notched beams of series *s3* (a) and *s4* (b)

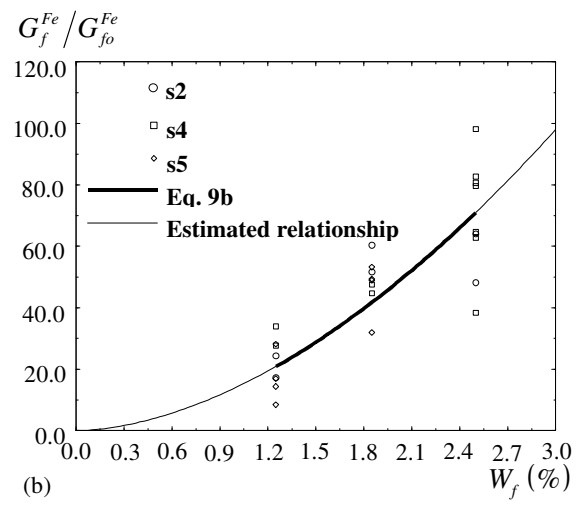
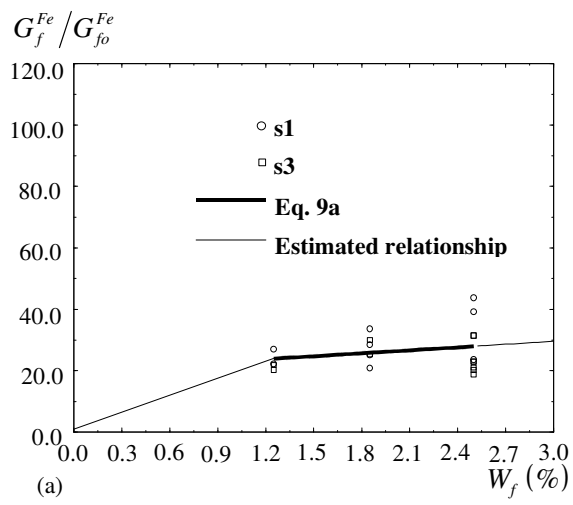


FIG. 5.  $G_f^{Fe} / G_{fo}^{Fe} - W_f$  relationship for specimens reinforced with ZP30/.50 (a) and ZX60/.80 (b) of fibers

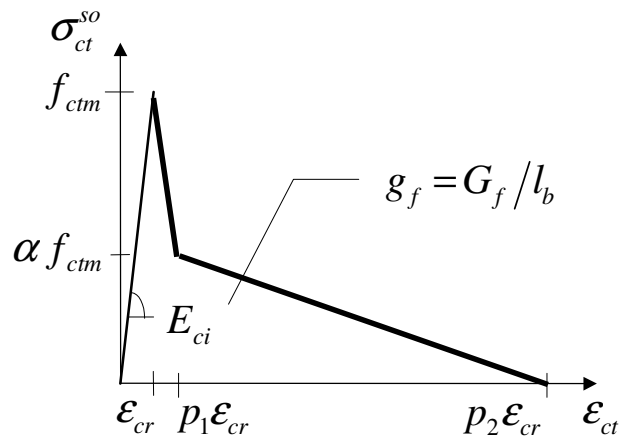


FIG. 6. Parameters used to define the tensile stress strain diagram

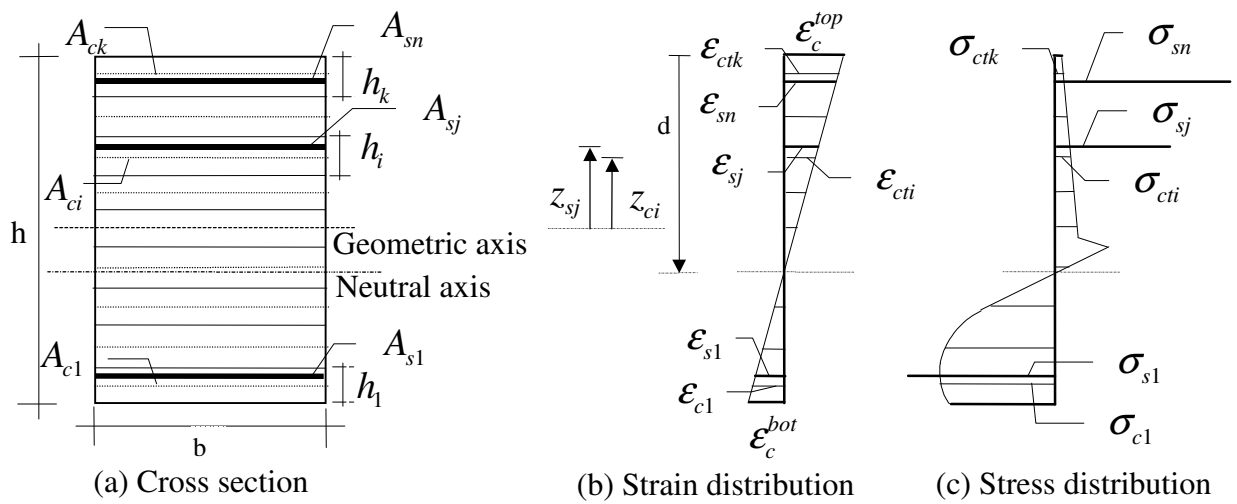


FIG. 7. Cross section discretization and assumed strain and stress diagrams

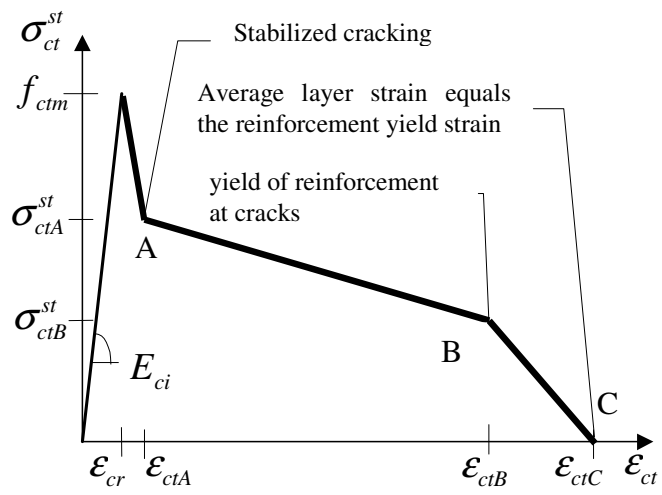


FIG. 8. Tension stiffening diagram



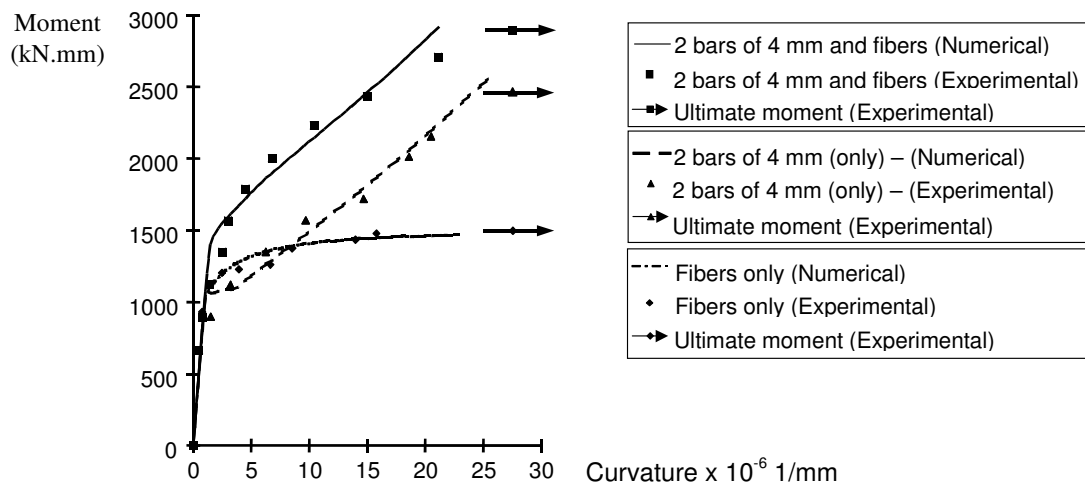


FIG. 9. Numerical versus experimental (Kormeling *et al.* 1980) moment-curvature relationship

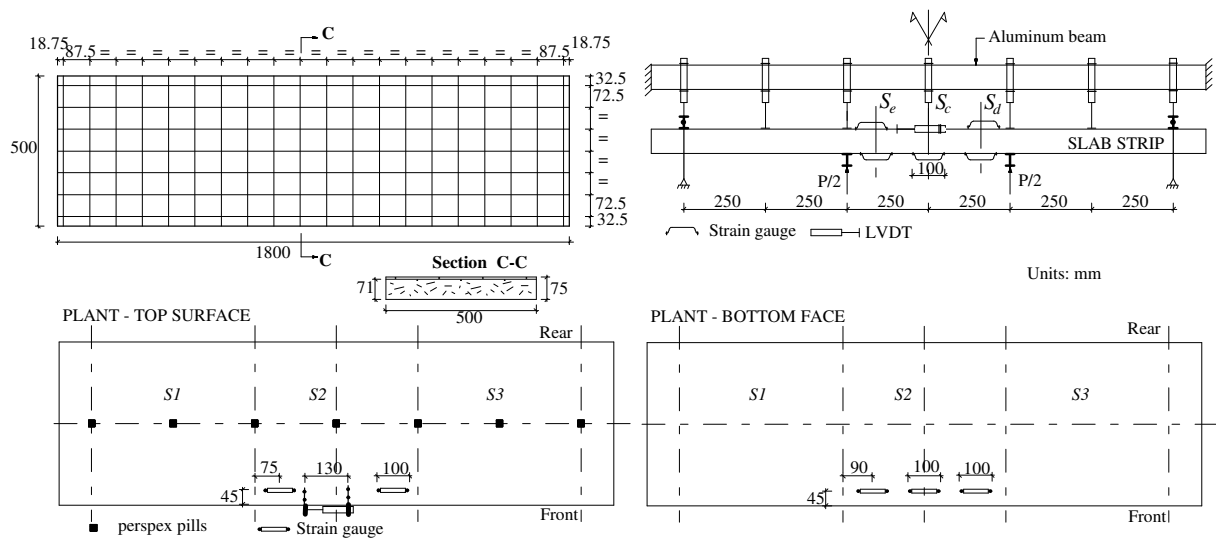


FIG. 10. Slab strip geometry, supports and load arrangement and details of instrumentation

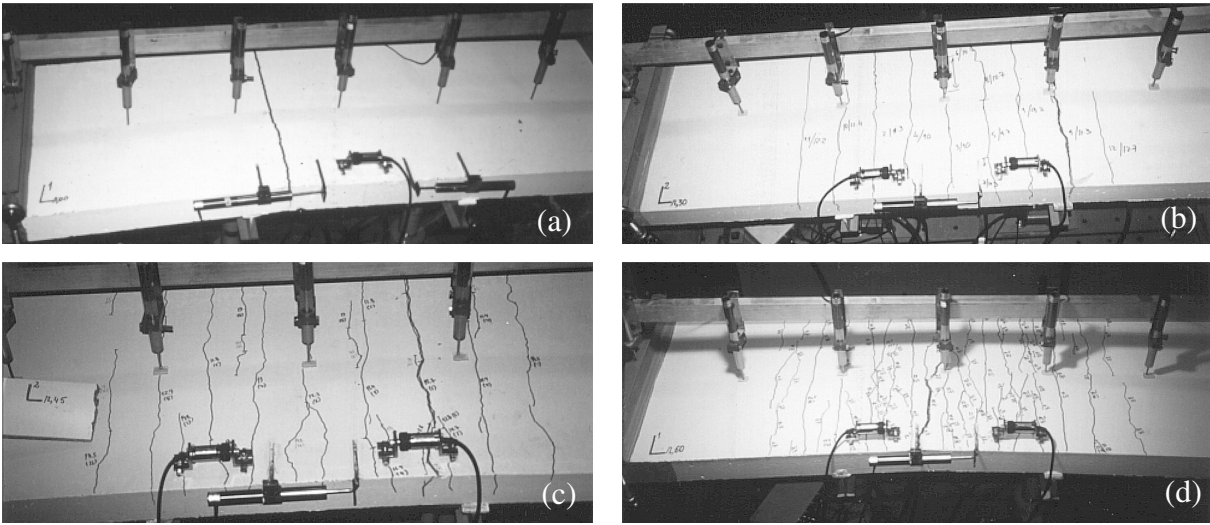


FIG. 11. Typical crack patterns of the slab strips reinforced with wire mesh and 0 (a), 30 (b), 45 (c) and 60 (d) kg/m<sup>3</sup> of fibers ZX60/80

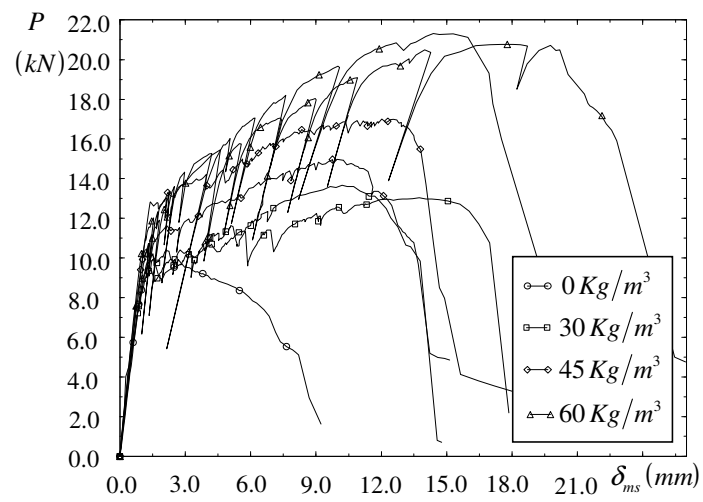


FIG. 12. Relationship between load and displacement at midspan, for the slab strips reinforced with wire mesh and different percentages of steel fibers ZX60/.80

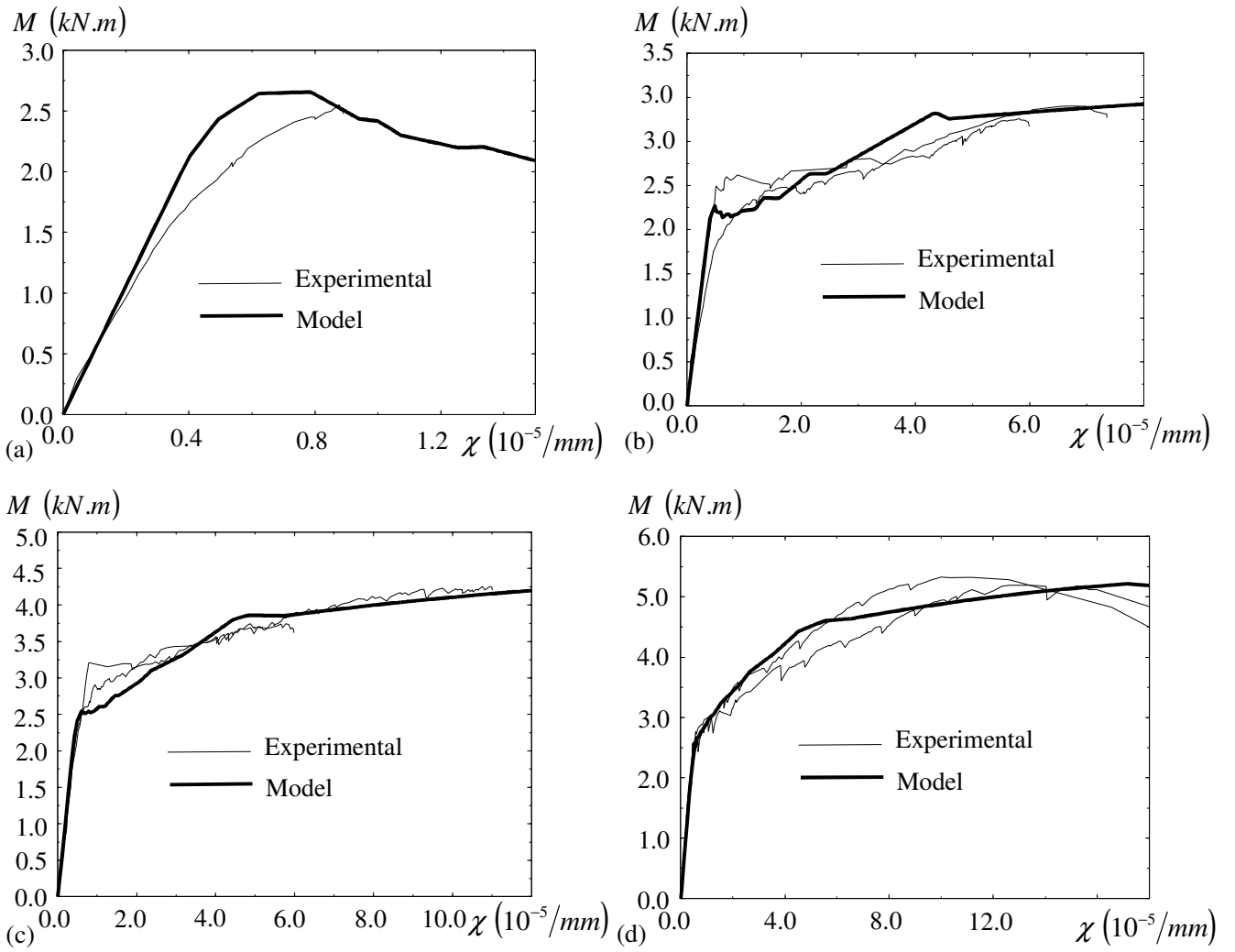


FIG. 13. Moment-curvature relationship of slab strips reinforced with 0 (a), 30 (b), 45 (c) and 60 (d)  $kg/m^3$  of fibers.