Fig. 4 — Bonded fabric cross-sections before and after repetitive bending for 6 h with adhesive A2

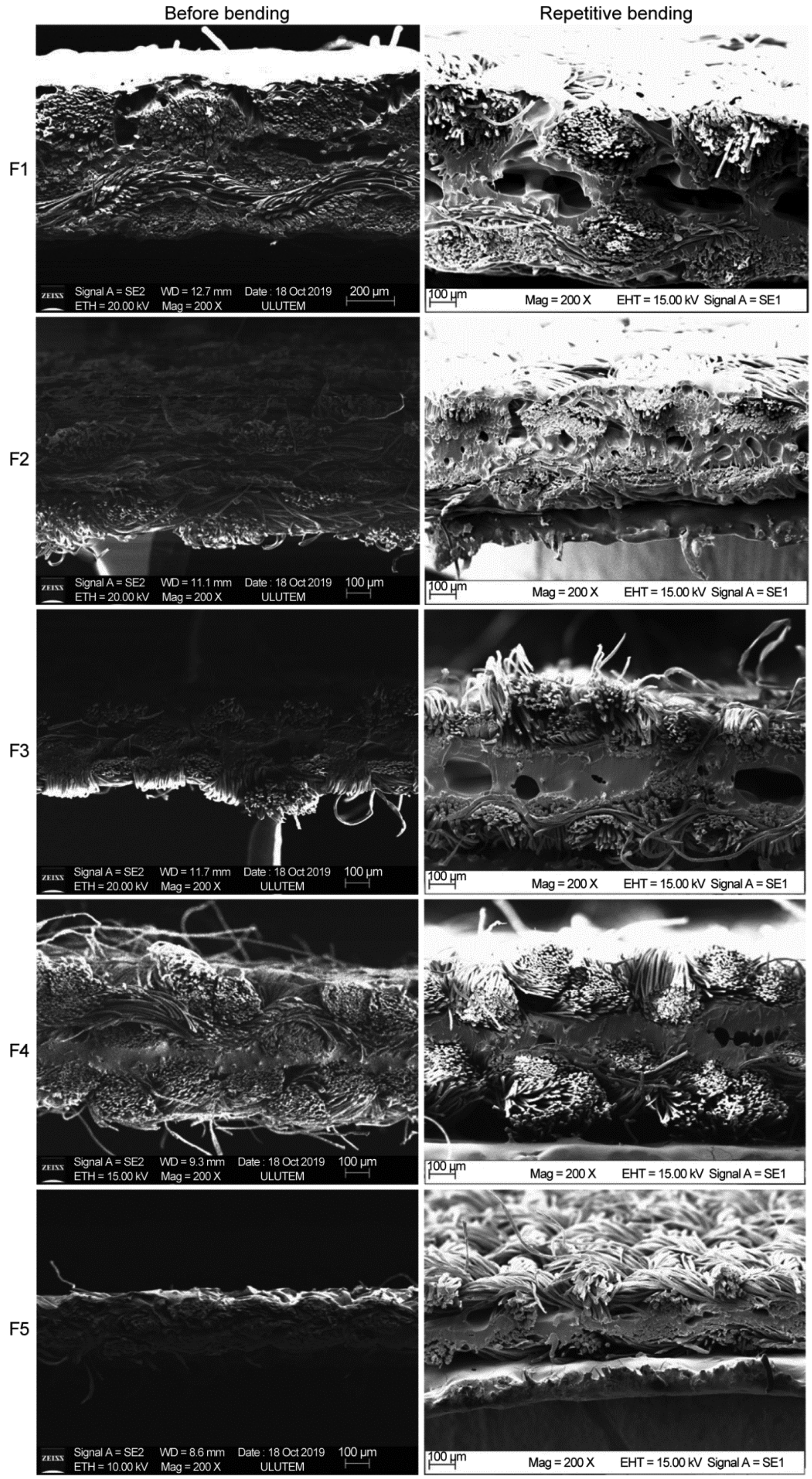

Fig. 5 — Bonded fabric cross-sections before and after repetitive bending for 6 h with adhesive A3

Both the fabric and adhesive layers can be seen clearly in SEM images. Thermoplastic film adhesives are thin layers so they remain on the inner surface of fabric layers instead of penetrating through fabric depth. All adhesives create soft joints and do not cause major changes in appearance. Although it is determined that the warp cross-sections after the bending of some samples are more oval, there is no significant difference, in general. As a result of the SEM analysis, the following observations are made:

- There are no major differences in cross-sections of samples (especially with thermoplastic adhesive films) before and after the bending process.
- At some joint, the contact of the adhesive-fabric layer decreases after 6 h of repetitive bending.
- At A3 adhesive's cross-section images, more air gaps are found after the bending process. This may be related to the bending process or bonding process itself.

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