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A Novel Basic Cell Modeling Method for Elastic-Viscoplastic Homogenization Analysis of Plain-Woven Laminates with Nesting

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Highlights

- A basic cell modeling method is developed for plain-woven laminates with nesting.
- The present method enables us to substantially reduce the analysis domain.
- The method achieves the modeling of a high volume fraction of fiber bundles.
- Elastic-viscoplastic behavior of a plain-woven laminate with nesting is predicted.
- The nesting affects the elastic-viscoplastic behavior of the plain-woven laminate.

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