

EML 4230 Introduction to Composite Materials

Chapter 2 Macromechanical Analysis of a Lamina Part 1

Deformations of a Unidirectional Lamina Under Applied Loads

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Courtesy of the Textbook
Mechanics of Composite Materials



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Typical Laminate

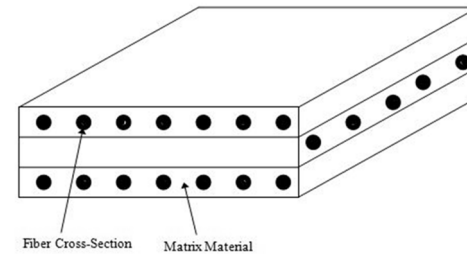


FIGURE 2.1
Typical laminate made of three laminae

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Deformation of Unidirectional Lamina

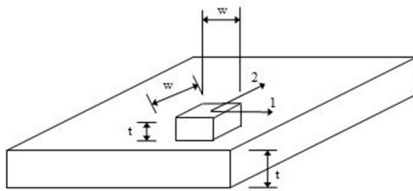


FIGURE 2.2
Deformation of square, isotropic plate
under normal loads

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Deformation of Unidirectional Lamina

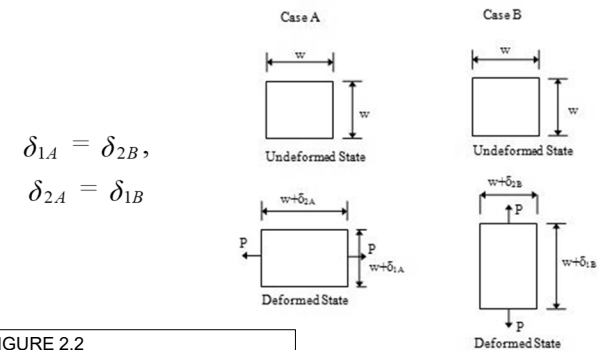


FIGURE 2.2
Deformation of square, isotropic plate
under normal loads

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Deformation of Unidirectional Lamina

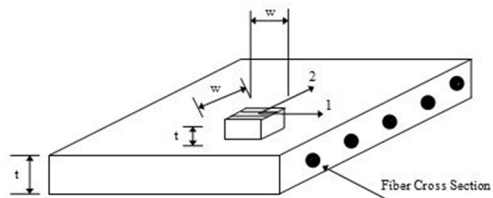


FIGURE 2.3
Deformation of square, unidirectional lamina
with fibers at zero angle under normal loads

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Deformation of Unidirectional Lamina

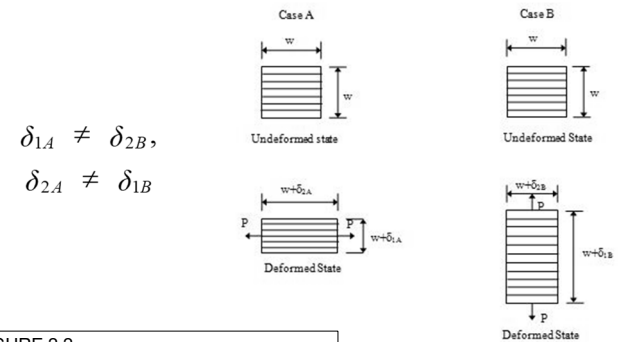


FIGURE 2.2
Deformation of square, unidirectional lamina
with fibers at zero angle under normal loads

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Deformation of Unidirectional Lamina

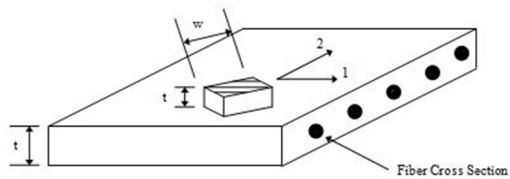


FIGURE 2.4
Deformation of square, unidirectional lamina
with fibers at an angle to normal loads

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Deformation of Unidirectional Lamina

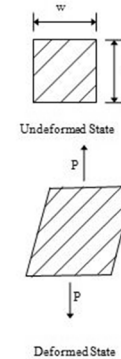
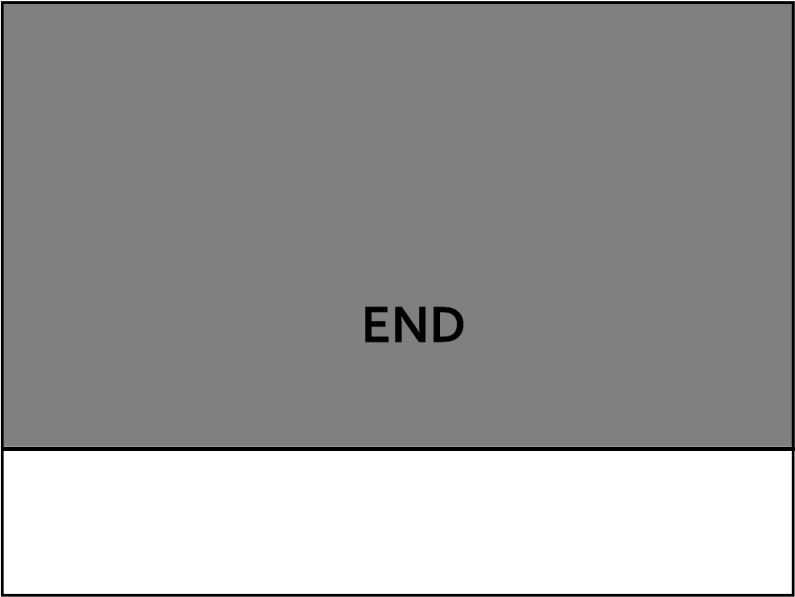


FIGURE 2.4
Deformation of square, unidirectional lamina
with fibers at an angle to normal loads

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