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ENHANCED BEAM MODELS FOR DELAMINATION TOUGHNESS TESTS: INFLUENCE OF SHEAR DEFORMABILITY

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The delamination toughness tests can be modelled simply using classical beam theory. However, for composite laminates, Timoshenko's beam theory, which considers shear deformability, would seem more appropriate. Actually, shear deformability increases both the compliance C and the total energy release rate G . Analytical results, bolstered by mechanical considerations, however, suggest that shear deformability should not influence the mode II contribution to G . Despite this, assertions to the contrary are reported in the literature. We try to shed light on this controversial point.