

Appendix E: Fracture Test Tables

Appendix E contains tables with values quantified for each fracture specimen tested. The figure below shows the corresponding points of interest as summarized in the tables, including variables, such as elastic stiffness and capacity and P_Q load and displacement values. Abbreviations for load-displacement curves are as follows:

P_{cap} = Peak or capacity load

P_Q = Load located at the intersection of the load-displacement curve and a line beginning at the initial data point and drawn with a slope of 95% of the slope defined by the adjusted elastic stiffness

k_e = Elastic stiffness (adjusted by subtracting contribution of wood deformation at the loading pins)

Energy @ P_{cap} = Area under L-D curve from initial data point displacement to Δ_{cap}

Energy @ P_Q = Area under L-D curve from initial data point displacement to Δ_Q

Fracture Energy = Energy @ P_{cap} + Energy @ P_Q

Specific Fracture Energy = Fracture Energy / Area of total crack propagation

P_{cap}/P_Q = Ratio to test relation between P_{cap} and P_Q (if less than 1.20, then acceptable)

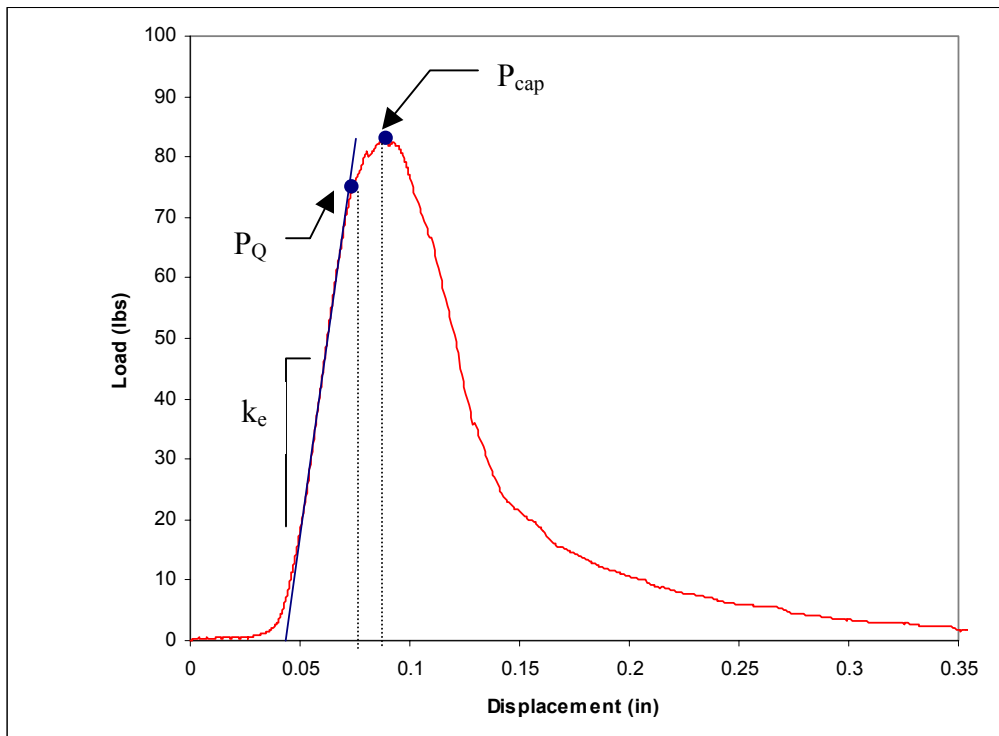


Figure E: Typical fracture test and property definitions