

Example 2.1.6

Figure 1 shows an elastomeric bearing pad consisting of two steel plates bonded to a chloroprene elastomer (an artificial rubber) with the dimensions shown. During a static loading test the pad is subjected to a shear force of 12 kN, which causes the top plate to displace laterally 8.0 mm with respect to the bottom plate. What is the shear modulus of elasticity G of the elastomer?

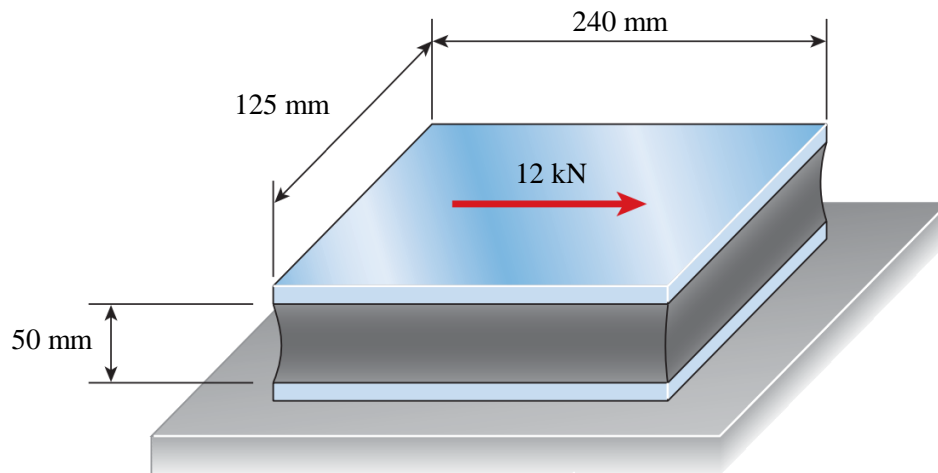


Figure 1: An elastomeric bearing pad.