CW2HWST-4)

For solids, there is a kinetic energy term and a potential energy term associated with vibration in each principle direction, each of which corresponds to $1/2k_BT$. For three dimensional solids, this results in the familiar c_M = 3R. For a truly two dimensional film, the results will be

$$c_M = \frac{4}{2} R = \frac{2R}{2} .$$