9/14/23

$$\frac{1}{T_2} = \frac{1}{T_{2,B}} + \rho\frac{S}{V} + \frac{D(\gamma G T E)^2}{12}$$

$T_{2,B} = 2.5\,s$

$T_2 = 0.261\,s$

$\rho = 45\,\mu m/s$

$$\frac{S}{V} = \frac{4\pi r^2}{\frac{4}{3}\pi r^3} = \frac{3}{r} = \frac{6}{D}$$

$$\frac{1}{0.261} = \frac{1}{2.5} + 45\,\frac{6}{D}$$

$$\Rightarrow \boxed{D = 79\,\mu m}$$