2 The frictional force F on a sphere falling through a fluid is given by the formula

$$F = 6\pi a \eta v$$

where a is the radius of the sphere, η is a constant relating to the fluid and v is the velocity of the sphere.

What are the units of η?

A $kg\,m\,s^{-1}$ **B** $kg\,m^{-1}s^{-1}$ **C** $kg\,m\,s^{-3}$ **D** $kg\,m^3\,s^{-3}$