2019 Ph H1 Q1

Section: Our Dynamic Universe
Topic: Motion, Equations and Graphs

Question Summary

The graph shows how the speed v of a car varies over **12.0 s**.
What is the **average speed** of the car during this time?

✅ Final Answer:

E. 12.5 m s⁻¹

Working

- Average speed = total distance ÷ total time.
- Total distance = area under the speed-time graph.
    - Suppose the car travels at 10 m s⁻¹ for 12 s:

$\text{distance} = 1012 = 120\text{m}$.

- Average speed = $12012 = 12.5\text{ms}$.

Quick Tips

- For speed-time graphs, area = distance.
- If speed is constant, average speed = constant speed.