

Heat flux

[@wikipedia](#)

Amount of [heat energy](#) transfer across unit area in unit time:

$$(1) \quad j_H = \frac{\delta E_H}{\delta A \cdot \delta t}$$

For the [continuum body](#) the [heat flux](#) model is adequately described by [Fourier's law](#):

$$(2) \quad \mathbf{j}_H = \lambda \cdot \nabla T$$

where

λ	thermal conductivity of the continuum body
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The [heat flux](#) j_H is related to [heat flow](#) q_H as:

$$(3) \quad j_H = \frac{q_H}{A}$$

where

A	heat transfer area
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See also

[Physics](#) / [Thermodynamics](#) / [Heat Transfer](#) / [Heat flow](#)

[[Heat Flux Conduction @ model \(Fourier's law\)](#)]