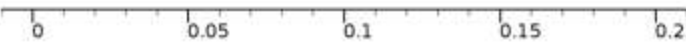


2.3 Heat Transfer in Solids

Used products

COMSOL Multiphysics



Heat Transfer in Solids

Selection

Geometric entity level	Domain
Selection	Domain 1

Equations

$$A_c \rho C_p \frac{\partial T}{\partial t} + A_c \rho C_p \mathbf{u} \cdot \nabla T + \nabla \cdot \mathbf{q} = A_c Q + q_0 + A_c Q_{\text{rad}}$$

$$\mathbf{q} = -A_c k \nabla T$$

Settings

Description	Value
Temperature	Quadratic
Compute boundary fluxes	On
Apply smoothing to boundary fluxes	On
Value type when using splitting of complex variables	Real
Cross sectional area	1[m^2]
Cross sectional perimeter	1[m]
Surface-to-surface radiation	Off