

# Heat transfer coefficient choice flag

---

In this document user can find the possible flags available to select the heat transfer mechanism in sheet HTC\_choice of input file conductor\_coupling.

## Conduction heat transfer coefficient

Available for solid components only.

- 1: computed by OPENSC2
- -1: read from sheet contact\_HTC of file conductor\_coupling and keep constant along the simulation

## Convective heat transfer coefficient

Available for both fluid and solid components.

- 2: computed by OPESC2 according to the selected correlation. For Fluid components the correlation can be selected in sheet CHAN of input file conductor\_input; for the environment the correlation correlation can be selected from sheet CONDUCTOR\_input in file conductor\_definition.
- -2: read from sheet contact\_HTC of file conductor\_coupling and keep constant along the simulation

## Radiative heat transfer coefficient

Available for solid components (Jackets) and for heat transfer between Environment and Jacket.

- 3: computed by OPESC2
- -3: read from sheet contact\_HTC of file conductor\_coupling and keep constant along the simulation

## Mixed convection and radiation heat transfer coefficient

Available for heat transfer between Environment and Jacket.

- 4: computed by OPESC2
- -4: read from sheet contact\_HTC of file conductor\_coupling and keep constant along the simulation

Note: the convective heat transfer coefficient evaluated by OPENSC2 for the heat exchange with the external environment is known to give some issues. If you have some, please open an issue on the [GitHub repository](#) and eventually provide your solution with a pull request. Fix to this issues will be available as soon as possible. In the mean while you can use the negative flags (-2 or -4) to assign a constant value.