**Instructions for use of TCCbuilder library**

**Library of materials**

The materials table: All properties in the table are given for room temperature and atmospheric pressure. In the *phase* column, *S* stands for solid, *L* for liquid, and *G* for gas. In the *thermal conductor* column, *L* stands for low conductivity (below 0.1 W/m/K), *M* for medium conductivity (between 0.1 and 100 W/m/K), and *H* for high conductivity (above 100 W/m/K).

After clicking on the “More info” button next to the selected material, the download of the material data starts. For each material, there are at least four *.txt* files. The *Materials.txt* file contains the basic information about the material, such as the name and chemical formula and/or CAS number. Sometimes this file also contains additional relevant data. The *Density.txt*, *Thermal conductivity.txt* and *Specific heat capacity.txt* files contain the temperature dependence of these properties for a given material. If the temperature dependence of a property is not available, only the value for room temperature is given. If data for a particular material is not available, sometimes data for a similar material is given or estimated from data for similar materials. Sometimes the average values for many similar materials are given. These exceptions are given in the files with comments.

**Library of TCEs**

The library of TCEs contains folders for different groups of TCEs. Each TCE has its own *.txt* file indicating which reference paper it is taken from. Most TCEs have been built and analysed experimentally. The *.txt* file contains available data for a particular TCE, such as its size, thermal resistance, thermal mass, and other relevant data.

When using the data from the library, keep in mind that some values have been estimated and may not be accurate, and that the properties of materials and TCEs depend on various factors, such as the manufacturing process, the degree of contamination, etc.