

# Heat flow map

Global maps of the solid Earth's surface heat flow based on Davies (2013). Relying on over 38,000 measurements, the map is a combination of three components. First, in regions of young ocean crust (<67.7 Ma), the model estimate uses a half-space conduction model based on the age of the oceanic crust, since it is well known that raw data measurements are frequently influenced by significant hydrothermal circulation. Second, in other regions of data coverage, the estimate is based on data measurements. At the map resolution, these two categories (young ocean & data covered) cover 65% of Earth's surface. Third, for all other regions the estimate is based on the assumption that there is a correlation between heat flow and geology. This assumption is assessed and the correlation is found to provide a minor improvement over assuming that heat flow would be represented by the global average.

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- This version: 25.10.2021
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- Specific citation: *This graphic by Fabio Crameri based on data by Davies (2013) is available via the open-access s-Ink repository.*
- Related reference: Davies, J. H. (2013), Global map of solid Earth surface heat flow, *Geochem. Geophys. Geosyst.*, 14, 4608– 4622, doi:10.1002/ggge.20271.

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