

## Vitrification of Clays

The vitrification point of clay is the highest level of heatwork, (temperature and time combined) that can be achieved without deforming. When a clay is fired to high temperatures the feldspathoids flux and melt, this molten matter flows into most of the spaces between clay particles welding them together in a glass-like form. Not all gaps in between clay particles are filled, some remain and this gives strength to the pot; total vitrification would result in something close to glass which would have no strength and the pot will deform in the firing and it will also lack strength and break easily. It is accepted that a vitrified body will have some porosity, even porcelains fired to their top temperature may have 0.1% porosity while more open clays with a high grog content may have 2% or greater porosity. Where pottery is designed to contain liquids, we advise using a glaze to ensure the piece is watertight.

We specify a vitrification range for most of our clays, clays are considered to be matured when fired within this range. The higher the temperature within the range, the more vitrification will take place, and the clay will become less porous.