A collection of tesserae and two fragments from rounded cakes of coloured glass, probably dating to the 2nd century AD, were found at West Clacton Reservoir, Essex, in the UK, by Colchester Archaeological Trust. A selection of the finds were analysed using SEM-EDS and ICP-MS. This paper provides data on the composition of the different glass colours and discusses how each colour was made. Colourants and opacifiers were added to a base glass, most often one of the transparent, naturally coloured (blue-green) natron glass types widely available at the time, but there appear to be preferences in the type of base glass used for certain colours, which affects the type of antimonate opacifier precipitated. Possible reasons for using different types of base glass to make strongly coloured Roman glass are discussed.