

STAMP PRODUCTION – SECURITY PRINTING INKS

For Royal Mail's *Stamps and Collecting* Website

When conversing about inks most people think of colour, but this is of less importance to a printer than the sort that is employed. The different options are discussed this month.

From 1840 onwards, ink has been an important consideration. The red Maltese Cross postal markings applied to the Penny Black stamp had proved to be hard to see and easy to remove, resulting in re-use and loss of revenue. The colour choice was consequently reversed resulting in the Penny Red stamp with a black cancellation.

Printing inks comprise different substances depending on the process that is to be employed. They can include oils, chemicals, pigments and other compounds to ensure the correct viscosity for the printing press, process, paper thickness or coatings being used. Intaglio inks are very thick and therefore raised, whereas most other inks are thin and transparent.

Stamps started out as single colour, then could be bi-coloured and slowly incorporated four or more inks when perfect registration of the design became feasible. Today's advanced printing presses can incorporate 14 or more colours in one pass enabling truly multi-coloured stamps to grace our albums.

These days, printing inks can be split between those helping to secure the product and those that are purely there for a decorative purpose. Security-type inks can be machine readable, such as graphite, phosphor or fluors. Stamps can also incorporate a specially formulated ink such as ultra violet which glows under special lighting or be optically variable, changing its colour when tilted (*Castles* high values, for example).

Decorative types can include aromatic inks (a 'scratch-and-sniff' synthetic eucalyptus was used on the *Nobel Prizes*), might incorporate scratch-off latex areas (*Magic*), or may be sensitive to temperature change (*Weather*). Other tactile materials can now be suspended in a varnish ink, such as the Rock of Gibraltar particles used on one of their issues.

It seems that there are now no limitations as to what inks can be used on a stamp!

[30 words in teaser and 305 in article] [Compiled by Glenn H Morgan FRPSL, 1 October 2007]