2.1 General background

There are an increasing number of litho plate imaging systems available to the printer, many of which do not require the use of film negatives or positives. For most categories of work, however, the use of film and a pre-sensitised plate is still the most convenient method of working. Strictly speaking the term pre-sensitised can be applied to any plate which has a photosensitive coating already applied. It is, however, usually reserved for surface plates (as opposed to deep-etch or multi-metal), which are imaged by exposure to a U.V. light source whilst in contact with a film image.

Some 'recently developed' plates, using similar coatings, have become available for imaging by laser or projection methods. These may also be referred to as pre-sensitised plates.

The base material for the pre-sensitised plate is normally aluminium, but chrome, paper or plastic may also be used; the latter two only for small offset. Both negative and positive working plates are available, and in the case of negative plates these may further be divided into additive and subtractive types. (These terms refer to differences in the processing procedure).

In the additive types the photo-sensitive coating is reinforced by using a developing lacquer to provide greater image durability, whereas the subtractive plates use a single stage developer, its only function being to remove the coating in non-image areas. The majority of plates, particularly the newer ones, use subtractive processing.

The early pre-sensitised plate coatings were all based on diazo compounds. In successive generations of plates these coatings have been steadily improved and have also been augmented by coatings based on photopolymers. Unlike diazo coatings, which are either water-soluble or spirit-soluble, the early polymer coatings were