any colour as long as it's green

One would really have to be a Rip Van Winkle to be unaware of the significance of VOCs (volatile organic chemicals) in the building industry. Regardless as to whether one agrees with the rationale or not, the modern reality is that a building today will be rated on the quantity of VOC in the building components. The paint industry is one of the industries that have responded to these challenges; reducing VOCs to ever lower levels and even producing coatings with no added VOC at all.

A weak chink in the armour of these ultra-low VOC coatings is that they have been invariably available in any colour as long as it is white.

The reason for this is that the point-of-sale tinters used to produce the vast range of colours available today, invariably contain some VOC.

Now this is not to say that these tinters are 'nasties' – not at all. The colours used in paints have been safe since lead was replaced. The issue lies in the fact that tinter pastes, which contain high levels of pigments, can dry out in a tinter machine, blocking nozzles; causing dry 'bits' to fall into the paint and reducing the accuracy of the colour. The problem is avoided by adding a material called propylene glycol to the pastes, which acts as a humectant, that is, a material which hangs onto moisture and prevents the paste drying out. When the tinter paste is incorporated into a paint and used, the propylene glycol evaporates and causes no residual water sensitivity.

Now propylene glycol, which is a bland material used in medications, cosmetics and even as a food additive, does fit into the definition of a VOC and add VOC to any paint to which they are added. Clearly, pastel colours are least affected but the effect in deep colours can become significant.

Alternatives to propylene glycol exist but generally come along with certain drawbacks such as creating thicker and less easily dispensed tinters; leaving a water sensitive residue in the paint film; adding cost and, most importantly to the dispersion chemist, can interact less positively with the pigment dispersing and stabilising systems.

Having stable well dispersed pigments is absolutely crucial to the performance of tinters. When one considers that there can be over two hectares of pigment surface in a single litre of a high strength tinter the magnitude of the problem of managing a change from VOC-containing to non-VOC can be imagined. Further, because the whole of a colour system depends on the smooth working of the tinting system, one can simply not afford to be wrong.

This has been a two year development programme at Resene and non-VOC tinters have been introduced into designated ColorShops as they have been developed. Performance has been closely monitored to ensure that when the time came to fully launch the non-VOC range, the change-over would be trouble-free.

All of the standard range of tinters have now been formulated, manufactured and field trialled and are available for general release throughout the Resene ColorShop network. All indications are that no-one will notice! All colours will be available to the same existing colour standards using the same formulations. When selecting products to meet green rating programmes, the Resene non-VOC tinters will add no VOC to the paint, so tinted or untinted the VOC of the paint will be the same.

In fact the only discernible difference expected is that no matter which colour you specify, no matter how deep it is, it will be greener.