



External use of 'Perspex'® U090 and U091

Technical Service Advisory Note
EXTERNAL USE OF 'PERSPEX'® U090 & U091

Most grades of 'Perspex'® for general purpose applications, such as signage, are coloured using specially selected, highly light stable pigments. This, and the inherently excellent weathering and UV light resistance of cell cast acrylic, gives 'Perspex'® its unparalleled external performance.

However, not all 'Perspex'® grades are intended or developed for external applications. Some specialised grades are intended for, and are suitable for internal use only

'Perspex'® U090 and U091 are two examples of this later type. They contain optical brighteners, whose function is to absorb UV and emit it as visible white light. This has the effect of intensifying the perceived level of light transmitted from the surface of the acrylic. This results in a "brighter" surface, which is more desirable for certain applications.

The UV optical brightener is, however, not completely stable on long term exposure to strong UV light. UV light is a component of sunlight. The optical brightener has a tendency to discolour slightly with exposure to UV light, ultimately imparting a slight yellowish hue to the acrylic. It is accordingly not possible to guarantee the long term external performance U090 and U091.

If U090 or U091 is to be used in external applications, and potential yellowing effects are objectionable, it may be necessary to protect the acrylic with an application of a film or lacquer which effectively screens out UV light. However, this will diminish the brightening effect, as little UV will be adsorbed by the optical brightener, which will accordingly emit little additional visible light.