



**'Perspex'® Service Life Statement**

# Technical Service Report

## 'PERSPEX'® SERVICE LIFE STATEMENT

### 'PERSPEX'®: SERVICE LIFE OF GRADES SUITABLE FOR EXTERNAL EXPOSURE

"Perspex"® is a high molecular weight cast acrylic sheet. Most grades are intended for exterior use. These grades are UV stabilised, and have excellent UV resistance and weathering properties. (This document does not refer to certain specialised transparent grades, coloured with special effect dyestuffs, which are intended for internal use only.)

Long term exposure tests, accelerated weathering tests, and long experience of the product, all indicate that the expected service life of "Perspex"® in exterior signage applications will be approximately ten years, for a vertical panel suspension, facing the noon sun directly. Longer service life will be obtained with panels that face east or west, and much longer for panels that receive no direct sunlight.

"Service life" means that period in which colour changes that may occur are sufficiently small as to remain unnoticed by a casual observer.

In addition, the rigidity of "Perspex"® will remain substantially unchanged in service. This means that the elastic modulus of a sample cut from a section of "Perspex"® will not be less than 2500 Mpa as delivered and for a period of ten years after delivery. (Test method: ISO 178 measured on specimens removed from the exposed "Perspex"® installation.)

"Perspex"® will suffer no unacceptable changes in brittleness. This means that the tensile strength as delivered and for a period of ten years after delivery of a sample cut from a section of "Perspex" will not be less than 50 Mpa. (Test method: ISO R527 measured on specimens removed from the exposed "Perspex"®.)

The Light transmission for clear "Perspex"® will not fall below 85%. (Test method: ASTM D 1003 when measured using a cleaned and polished flat sample of 1mm thickness taken from the exposed sheet.) Provided always that the "Perspex"® and the articles made from it, has been stored, handled, fabricated, and installed, to acceptable standards, and was not subject to harm from chemical agents, solvents, unsuitable sealants or decorative material