



The first double-glazed profile, as can be seen in the Plastics Museum.

## THE PVC WINDOW: AN EXTRAORDINARY DEVELOPMENT

The origins of PVC date back to the beginning of the 20th century and the discoveries of a certain Fritz Klatte. A hundred years later, PVC is an indispensable element in sustainable development.

It took almost 40 years for the first patent to be filed for what would become PVC. Since then, one innovation has followed another as needs or environmental requirements have developed. Most patents relate to models for frames for double – and now triple – glazed windows, aimed at improving the heat and sound insulation of buildings.

The first window incorporating PVC appeared in 1953. It is on display in the Plastics Museum in Troisdorf (Germany). It consists of a metal profile entirely coated in PVC to protect it against corrosion, into which two panes of glass are inserted without any form of seal. Three years later, the press enthusiastically announced: «PVC windows: an extraordinary development!» The December 1959 issue of the magazine *Canadian Plastics* marked the development under the title «Rigid window in vinyl». The PVC window became popular at the start of the «golden sixties» and was soon being widely used. In 1964, the magazine «Modern Plastics» reported on the growth of the market: «In 1955, 500 tonnes of PVC windows were produced; now in 1964, the figure is already close to 8,000 tonnes!». Given that it is very rare for a PVC window to be replaced for reasons of wear, this growth

has occurred at the expense of wood and aluminium.

### A service life of at least 30 years

August 1968: Egon Barth, a scientist with the Dynamit Nobel Company in Bonn, installed a double-glazed PVC window in his home; this window is now in the Plastics Museum after being replaced in... 2000 by security glazing in response to rising crime levels. Technically speaking, the window is still in perfect condition after 32 years in service. The original PVC frames were recovered to accommodate another of the house's windows. The majority of PVC windows installed in Germany in the 1970s are still in service. What better advertisement could there be?