

COATING TECHNOLOGY – PRODUCTS

Several coating materials have been developed over the years. Our products have been designed to make the best use of the technology. These pyrolytic coated glasses have excellent handling characteristics. They are scratch resistant, temperable and bendable; they require no edge deletion and have unlimited shelf life.

Pilkington is clearly the leader in Chemical Vapour Deposition (CVD) technology. About 50% of all pyrolytic products sold worldwide are produced in Pilkington plants. Pilkington CVD technology (coating equipment, coating stacks, and deposition chemistries) has been widely licensed all over the world (Europe, North and South America, Asia, Africa).

Low E Coatings

Low E glazings increase comfort inside a building. By reducing convection and conduction from cold surfaces the coating gives a higher surface temperature for the glass pane inside the building, increasing the comfort of people working close to the window. With temperatures outside at -10°C, the inside surface of a single glazed window will be -2°C. By using a low E coated double glazed unit this can be raised to 15°C.

The performance of Low E coatings has improved significantly in response to legislation for both energy conservation and reduction in green house gas emissions.

The Group's products in this area are Optitherm SN – a sputtered product and the pyrolytic coatings K-Glass in Europe and Energy Advantage™ in North America.



Reflective & Solar Control Coatings

In 1976, Pilkington launched Reflectafloat and this was followed within a few years by its siblings Eclipse, Mirropane, and Gold Eclipse. These reflective products are available on a wide range of glass compositions, and provide a unique combination of reflectance and solar performance in a durable, pyrolytic surface glass with rich aesthetics. Solar E, the first pyrolytic product combining low emissivity with solar control properties, was launched in 1999.



In the sputter area Solar control coatings are also available which combine good spectral selectivity with pleasing aesthetics. These glazings are the companions of the Low E glazings, but are suitable for warm climates and are designed to meet the energy codes in cooling dominated regions.

The Energy Advantage technology also gave a family of TEC products. Transparent and electrically conductive, these TEC products are used in a variety of applications such as freezer doors, oven door windows, photovoltaic panels, electrochromic devices, etc. These products in conjunction with other coatings have been used to produce electrochromic windows for commercial building. Other applications include Anti Reflective products for electronic displays



Finally, in the spring of 2001, Pilkington Activ™, the world's first solar-powered self-cleaning glass, came to light. The product uses UV energy from the sun to keep windows clean naturally, by a two-step process. The coating's photoactivity breaks down organic materials, reducing the adherence of dirt to surfaces. The coating's hydrophilic action then helps wash off the dirt during rain.



Ordinary float glass



New Pilkington Activ™



PILKINGTON