Pilkington **Profilit**™
Profiled glass with system

PILKINGTON
NSG Group Flat Glass Business

Pilkington **Profilit**™ - Profiled glass a system that enriches architecture

Function, aesthetics and cost-effectiveness

Pilkington **Profilit**™ is an alkali cast glass in U-shape, produced according to DIN EN 572, Part 7, using the machine rolling process. Behind this matter-of-fact technical description lies an amazingly versatile construction product that thanks to ongoing development activities and intensive technical application support has constantly opened up new applications in the areas of facades and interior construction in recent years.

Taking national and international standards and guidelines into consideration, the range of applications now extends from purely functional buildings to architecturally sophisticated reference objects. What all applications have in common is the unique combination of function, aesthetics and cost-effectiveness that distinguish construction with the Pilkington **Profilit**™ profiled glass with system.

German production - global application

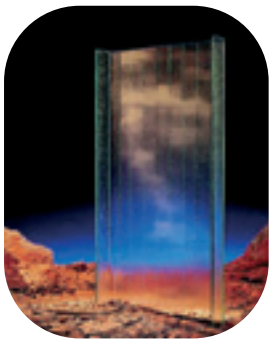
The Pilkington **Profilit**™ profiled glass with system is traditionally developed by Pilkington Bauglasindustrie (BGI) based in Schmelz, Germany and produced for customers worldwide.

As a member of the globally present Pilkington Group, which is in turn part of the NSG Group, Bauglasindustrie GmbH contributes the entire product-related know-how for profiled glass. The production facilities in Schmelz are constantly modernised and expanded in keeping with the latest production and environmental technology findings and requirements - most recently with a highly productive manufacturing plant for the thermally toughened Pilkington **Profilit**™ T.

TÜV CERT
DIN EN ISO 9001: 2000
Zertifikat Nr. 71 100 7 020

Bauglasindustrie GmbH,
Schmelz

Pilkington **Profilit**™ - from versatile construction material to intelligent system

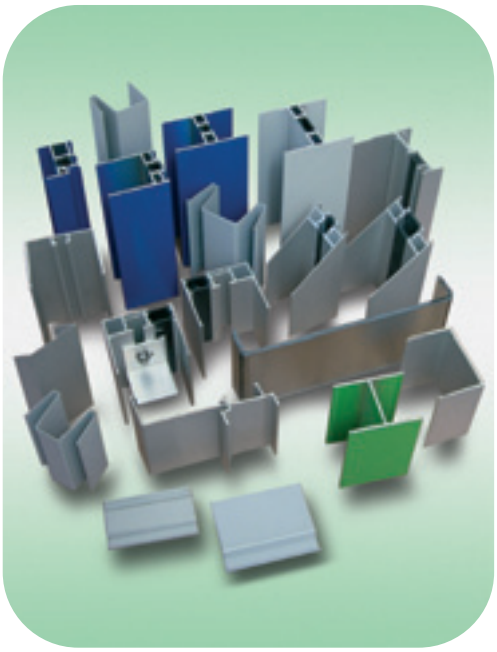


Pilkington **Profilit**™ - Profiled glass

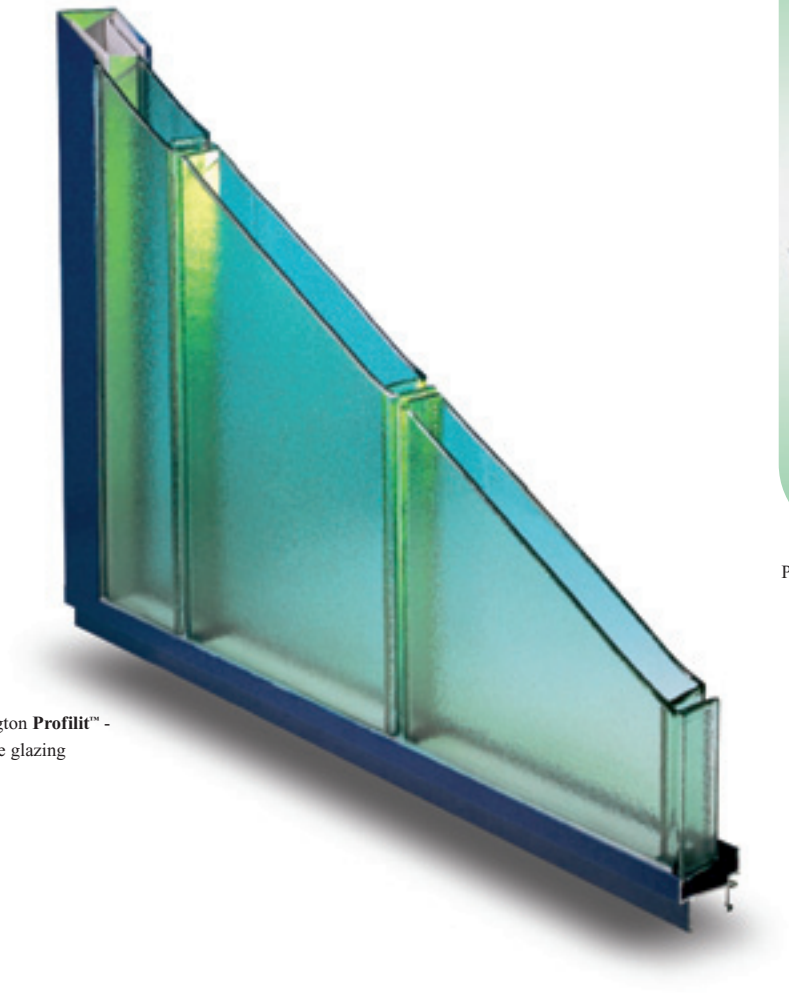
For sustainable architecture

Whether an industrial building, sports arena, office building, parking building or museum - today larger construction projects are characterised by an environment of building law and technical regulations that places continually increasing demands on building materials.

Buildings are viewed holistically taking into account all relevant physical and structural considerations.
Under the aspects of thermal insulation, sound insulation and structural safety this is intended to ensure a maximum of ecology, economy, sustainability and comfort.



Pilkington **Profilit**™ - System components



Pilkington **Profilit**™ - Sample glazing

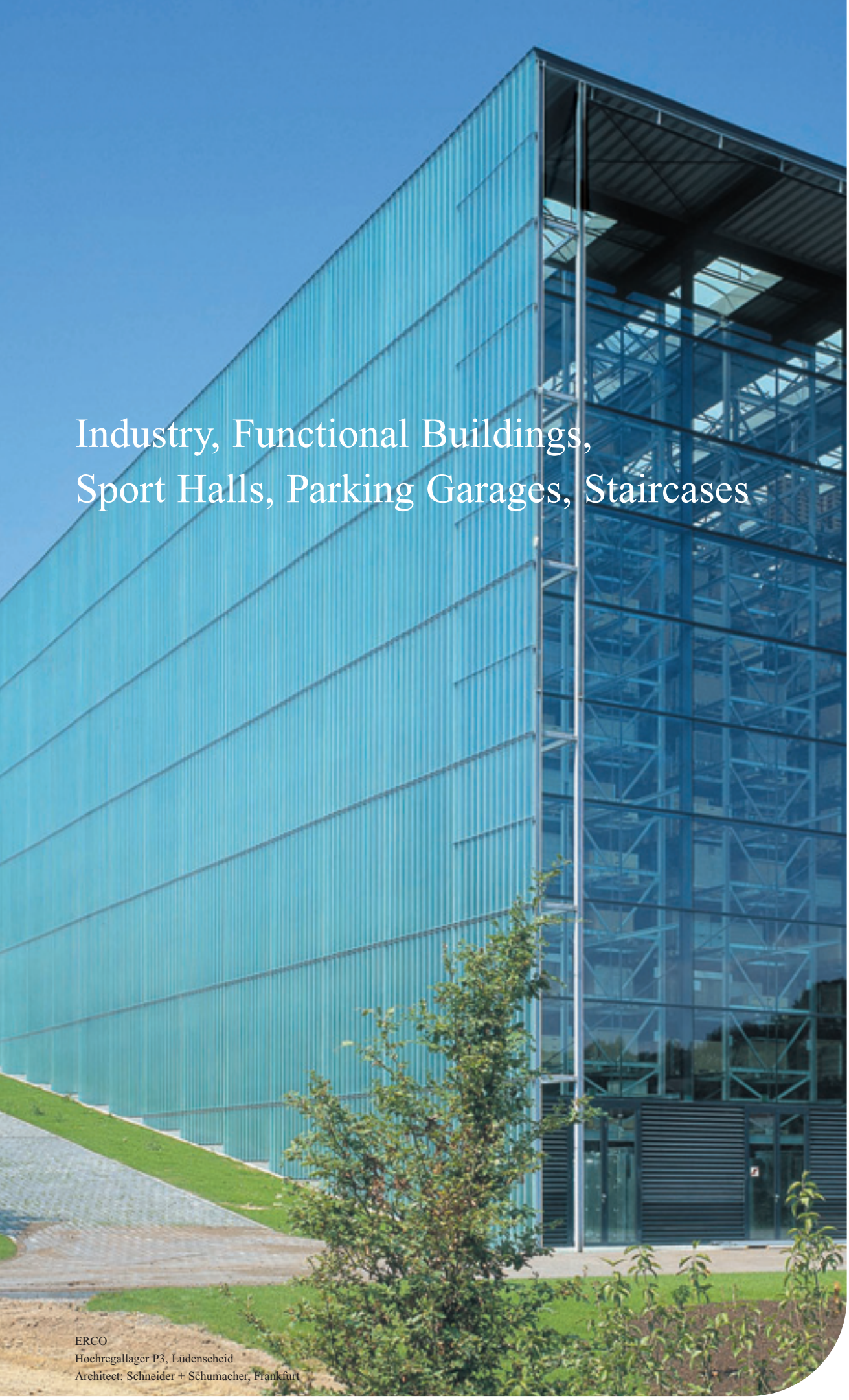
In the canon of modern materials that allow such “sustainable” construction, glass has meanwhile firmly established itself because of its combination of transparency and functional versatility. In addition to the transparent functional glasses for the building sector, the translucent profiled glass with system Pilkington **Profilit**™ shares responsibility for the fact that today architecture is not only economically and energetically sensible and safe, but at the same time full of light and user-friendly.

In dialogue with modern building materials
In modern architecture, design often results from a creative interplay between e.g. steel/aluminium, natural stone, concrete, wood and glass.
Only those materials that also ensure compatibility at system level in addition to their good structural and optical properties can participate in this dialogue of puristic building materials.

In order to allow and highlight the most diverse applications possible, at an early stage already Pilkington Bauglasindustrie pursued the system idea with Pilkington **Profilit**™.
Whether facades, window bands or internal partitions - using the system the application is always covered in its entire complexity and reproduced at product level following the modular principle.

In this way, individual energetic and structural requirements can be taken into consideration as can component connections, the integration of transparent and ventilation elements or the legally required safety properties.

① ②
Citymark Apartments, Edinburgh
Architect: Michael Laird Architects
Photographer: Paul Zanre Photography



Industry, Functional Buildings, Sport Halls, Parking Garages, Staircases

ERCO
Hochregallager P3, Lüdenscheid
Architect: Schneider + Schumacher, Frankfurt

① ②
BMW AG
Central Building, Leipzig
Architect:
Zaha Hadid Architects, London
Photographer: Martin Klindtworth

③ ④
EKZ-Alstertal (Shopping centre)
Parking garage,
Hamburg-Poppenbüttel
Architect: Architekturbüro
Knut Jensen, Nordwalde

Economical and functional: Pilkington **Profilit**™ in industrial and functional buildings

A constant in construction of industrial buildings

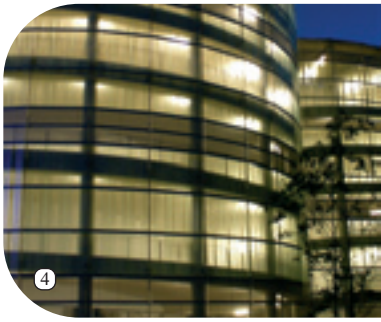
For over four decades Pilkington **Profilit**™ has been able to maintain its outstanding role in the design of industrial and functional buildings. Originally construction of industrial buildings used the product under purely functional and economic aspects to allow light transmission across large areas in the most economical way possible.

Today even with purely functional buildings, an awareness of the aesthetic quality of the profiled glass system is noticeable - the design diversity of its use and the chosen combination with other facade building materials and systems are evidence of this.

Large and continuous glass surfaces

With the both simple and yet technically sophisticated system components of the Pilkington **Profilit**™ modular system, large-scale facade glazing for the natural lighting of buildings can be carried out in an optically continuous look.

Depending on the specific building's energy requirements, implementation as single- or double glazing is possible, if required even with sun and heat protection coated profile versions. The (frequent) vertical arrangement of the profiles can be varied by a horizontal arrangement if desired. Furthermore, within the system the integration of windows and transparent fix elements is possible, e.g. where ventilation is necessary or transparency and visual contact are desired.



Economical and flexible:
Pilkington **Profilit**™ in sports and assembly facilities

Light, design and safety

Sports and assembly facilities, multifunction halls and parking garages are functional buildings, but because of the greater architectural sophistication and the object size are generally more complex technically than production halls and warehouses.
Here the subject of daylight penetration and design are generally coupled with the desire for larger installation lengths, ventilation options and increased safety demands placed on the profiled glass.

When planning and building such sophisticated functional buildings, architects can rely on the assured application technology know-how of Pilkington Bauglasindustrie.

① ② ③
Sports Centre, Jaslo (Poland)
Architect: Wojciech Kurzeja, Wawrzyniec Kuc

④
Liebenau Sports Hall, Neckartailfingen (D)
Architect:
Zoll Architects, Stuttgart

① University of Iowa
Architect: Steven Holl, Lead Architect, New York
Photographer: Jerry Swanson Architectural Photography

② ③ Arsenal Emirates Stadium, Ashburton Grove (London)
Architect: HOK Sport

Pilkington Profilit™ T
Pilkington Profilit™ T Color
Specifically for the increased safety requirements within traffic areas of public buildings, Pilkington Bauglasindustrie offers thermally toughened Pilkington **Profilit™** T, whose greater safety characteristics have been tested e.g. following the methodology of EN 12600.

This product variant, which is distinguished by greater mechanical strength, supports the creation of large surfaces open to light when safety requirements must additionally be met.

The colour coated Pilkington **Profilit™** T Color lends itself to situations where, in addition to higher safety requirements, colour accentuations are desired.

Architecture - New design opportunities

"Das Silo", Hamburg-Harburg
Architect: von Bassewitz
Limbrock Partner, HH

① Renault Track Office, Pero (Milan)
Architect: Alessia Garibaldi and
Giorgio Piliego-Garilab, Garilab Associati, Milan
Photographer: Andrea Martiradonna

Sustainable and energy-efficient: Pilkington **Profilit**™ in facade design

System and creativity

Pilkington **Profilit**™ is used not only because of its cost-effectiveness for the exploitation of natural daylight, but at the same time is also included in the materials repertoire for the modern building shell as a striking stylistic device.

The applications in modern project architecture are also promoted by Pilkington Bauglasindustrie through intensive application technology activities, object consulting and product innovations.

As a result, new creative possibilities are available to architects and planners for the design of various facade systems, such as e.g. non-ventilated facades, rear ventilated facades, in the innovative area of translucent insulation material and there are even possibilities for passive solar energy generation.

② ③ Woong-Jin Think Big,
Pazu (Korea)
Architect: In-Chul Kim

① ②
Soteg S.A.,
Esch-sur-Alzette (L)
Architect: Jim Clemes S.A.,
Esch-sur-Alzette

①


②

Innovation-Sustainability-Efficiency
The trend towards sustainability, energy efficiency and cost-conscious construction is supported by ongoing product developments that make it possible to use Pilkington **Profilit**™ in facades almost without limitations.

Where, for example, improved thermal insulation values are required, these can be achieved in double-glazed installation and by using coated Pilkington **Profilit**™ ‘plus 1.7’.

Improved sun protection can in turn be achieved with coated Pilkington **Profilit**™ ‘Antisol’.

Optimum thermal installation, finally, can be realised in combination with translucent thermal insulation inserts, which are positioned in the inner space of the double-glazed profiled glass. In this way sustainably cost-effective energy concepts can be realised in harmony with the individual architecture.

③
August Faller KG, Waldkirch (D)
Architect: pfeifer roser kuhn Architects, Freiburg (D)
Photographer: Ruedi Faller, Basle (CH)


③

Versatile and multifunctional: Pilkington **Profilit**™ in object architecture

Variation through type diversity

To allow facade design that is as individual and diverse as possible, Pilkington Bauglasindustrie offers its modular system with numerous product variations.

Different profile widths between 232 mm and 498 mm, flange heights of 41 mm and 60 mm and two glass thicknesses (6 mm and 7 mm) allow different façade surface structures with vertical, horizontal and also diagonal arrangement of the profiled glass sections.

Visual variation options are possible in addition to the standard appearance thanks to integrated wire inserts as well as a clear (without ornament 504) Pilkington **Profilit**™ version.

The translucent characteristic of the profiled glass is measured by the constantly high light transmission, which in case of single-glazed installation averages 86%, and with double-glazed installed profiles is around 75%.

Determination of the installation lengths

An important planning criterion when using Pilkington **Profilit**™ is often the permissible installation length. It is dependent both on the type of installation (e.g. single- or double-glazed) and the glass type as well as the design wind load of the glazing, calculated for the location and the installation position. Taking these parameters into consideration, in individual cases installation lengths of 6 m are possible - fundamentally, because of the greater mechanical strength, greater installation lengths are achieved with the thermally toughened version Pilkington **Profilit**™ T than with the standard annealed types.

Installation components and special solutions

In addition to horizontal and vertical standard glazing, the Pilkington **Profilit**™ modular system also encompasses the installation of transparent window elements and ventilation shutters as well as roof glazing in the form of vertical shed glazing.

Architects all around the world have proven that beyond this numerous individual solutions are possible with profiled glass. So if a special solution is desired that goes beyond the system spectrum offered, the application engineers at Pilkington Bauglasindustrie are always at the planner's side with help and advice.

① Specialist Retailer Brüttisellerkreuz (Parking garage), Dietlikon (CH)
Architect: Andrea A. Cambetti, Zürich

② OIP Interieur, Berkel en Rodenrijs (NL)
Architect: OIP Interieur Architect
Photographer: Awé Krijger Fotografie v.o.f., Schiedam (NL)

Light transparent room design

PPL LOT, Memory Hall,
Warsaw (Poland)
Architect: Stefan Kurylowicz,
APA Kurylowicz & Associates

① North Hertfortshire College
Architect: Dyer
Photographer: David Barbour

② A-S House, Posillipo (Naples)
Architect: Gianni Ranaulo,
Light Architecture

Innovative and creative:
Pilkington **Profilit**™ in interior design

Design and directed lighting

Whether as an "internal quotation" of a facade design with profiled glass or as a stand-alone design element - the use of Pilkington **Profilit**™ in interior design is possible in many ways.

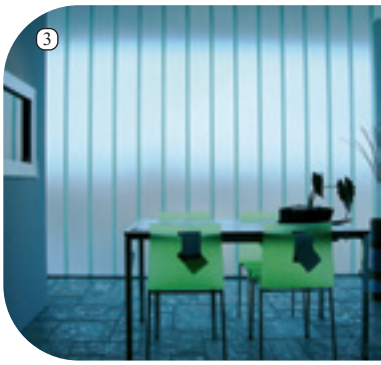
As in the facade, the combination of aesthetics and function is also a major motivation for the use of Pilkington **Profilit**™ in interior design.
Internal partitions, light bands or backlit elements made of profiled glass fulfil their task of lighting and directing light, and thanks to their material represent an attractive design accent.

Used as flexible and translucent partitions, in addition to getting natural daylight, with Pilkington **Profilit**™ a discreet effect can be achieved.

Coloured and structural variants

Through various gradations of the glass profiles in width, pattern and colour, additional design variants are possible.
Pilkington **Profilit**™ Amethyst and Pilkington **Profilit**™ clear (without ornament 504) are available with and without wire inserts as well, the product line Pilkington **Profilit**™ T Color - thermally toughened and coloured enamelled profiled glass in a wide range of RAL shades - adds striking colour accentuations to the range.

Thanks to the thermal toughening of the profiled glass, the product variants Pilkington **Profilit**™ T and Pilkington **Profilit**™ T Color can also be used where greater safety properties are required. Country-specific guidelines and building regulations, however, must be adhered to e.g. in the case of interior glazing in traffic areas.



③ Van Ekeris (Furniture store),
Veenendaal (NL)
Architect: A12 Architects

④ OIP Interieur,
Berkel en Rodenrijs (NL)
Architect: OIP Interieur Architect
Photographer: Awé Krijger
Fotografie v.o.f., Schiedam (NL)

⑤ Offices, Helsinki

CE

CE marking confirms that a product complies its relevant harmonised European Norm.
The CE Marketing label for glass products, including declared values, can be found at www.pilkington.com/CE.

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