

PYRAN® / PYRANOVA® certified fire protection glass by SCHOTT

Pape Strahlenschutz GmbH



PYRAN® – high quality

Fire resistant glazing with PYRAN® protects against the spread of fire, hot gases and smoke. Even under high thermal loads, the glazing stays transparent, ensuring that the burning building can be safely evacuated.

Variants

Fire-resistant glass is classified using a combination of letters and numbers in accordance with EN 13501-2:

- E** Guarantees integrity in case of fire, hot gases and smoke.
- EW** Guarantees integrity in case of fire, hot gases and smoke and provides protection against heat radiation.
- EI** Guarantees integrity in case of fire, hot gases and smoke and provides additional thermal insulation.



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| Fire protection | | | Protection of persons and property | | |
|---|---------------------------|-------------------------------|--|--|----|
| | | | Fire protection in accordance with EN 13501-2 + Manual attack resistance and bullet resistance in accordance with EN 356 and EN 1063 | Manual attack resistance and bullet resistance in accordance with EN 356 and EN 1063 | |
| E | EW | EI | EI | EI | |
| | | | | | |
| PYRAN® S ¹⁾ DGU PYRAN® S ²⁾ PYRAN® white PYRAN® L PYRAN® Platinum | PYRAN® 3) PYRANOVA® 4) | PYRANOVA® 5) DGU PYRANOVA® | PYRANOVA® secure | NOVOLAY® secure ⁶⁾ DGU NOVOLAY® secure | |
| 1) | 2) | 3) | 4) | 5) | 6) |

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Product advantages

- » High transmission in the visible and ultraviolet spectral ranges.
- » Brilliant white glass optics, ensuring natural, pure color reproduction.
- » Resistant to attack by aggressive environmental factors.
- » Suitable for outdoor use with no limitations regarding UV radiation or temperature fluctuation.
- » Resistant to abrasive chemical solutions.
- » Option to make PYRAN® S anti-reflective on both sides using a dip-coating manufacturing process.
- » Easy to use in demanding architectural designs and available in large, smooth sheets of glass for unobstructed views.
- » Can also be used as part of a composite with soda-lime or single-pane safety glass, adding extra noise insulation and TRAV-certified impact resistance.

| Dimension | Standard | max. Dimension |
|-----------------|-------------------|-------------------|
| PYRAN® 5,6 mm | 1650 mm x 3000 mm | |
| PYRAN® 8 mm | 1650 mm x 3000 mm | 1600 mm x 3600 mm |
| PYRANOVA® EI 30 | | 1900 mm x 2900 mm |
| PYRANOVA® EI 60 | | 1900 mm x 2900 mm |
| PYRANOVA® EI 90 | | 1900 mm x 2850 mm |

Application possibilities

Facades | Partition walls | Skylights and rooflights | Doors | Roofs | Smoke screens
Lift door glazing | Lift shaft glazing

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PYRAN®

| Product | Fire resistance class [EN 13501] | Thickness [mm] | Cavity [mm] | Counterpane | Thickness counterpane [mm] | Layer | Layer level | Weight [kg/m ²] | U _g -value [W/m ² K] Fill gas: argon | U _g -value [W/m ² K] Fill gas: air | g-value [%] | Light transmission [%] | R _w [dB] |
|------------------------|----------------------------------|----------------|-------------|-------------|----------------------------|----------|-------------|-----------------------------|--|--|-------------|------------------------|---------------------|
| Monolithic glass types | | | | | | | | | | | | | |
| PYRAN® S | E(C) 30 | 5 | | | | | | 11,4 | | | 91 | 92 | 30 |
| | E(C) 30 - 120 | 6 | | | | | | 13,7 | | | 91 | 92 | 31 |
| | E(C) 30 - 120 | 8 | | | | | | 18,2 | | | 90 | 92 | 32 |
| | E(C) 30 - 120 | 10 | | | | | | 22,8 | | | 90 | 92 | 33 |
| | E(C) 30 - 120 | 12 | | | | | | 27,4 | | | 90 | 92 | 34 |
| PYRAN® white | E(C) 30 | 5 | | | | | | 11,1 | | | 91 | 92 | 30 |
| | E(C) 30 | 6,5 | | | | | | 14,5 | | | 91 | 92 | 31 |
| Laminated glass types | | | | | | | | | | | | | |
| PYRAN® L | E 60 | 5 | | K/N - Float | 4 | PVB 1,52 | | 21,5 | | | 78 | 89 | 34 |
| | E 60 | 6 | | K/N - Float | 6 | PVB 1,52 | | 29 | | | 77 | 88 | 35 |
| Insulation glass types | | | | | | | | | | | | | |
| DGU PYRAN® S | E(C) 30 | 5 | 15 | K/N - Float | 4 | | | | | 2,7 | 78 | 83 | 33 |
| | E(C) 30 | 5 | 15 | K/N - Float | 6 | | | | | 2,7 | 75 | 82 | 34 |
| | E(C) 30 - 90 | 6 | 15 | K/N - Float | 4 | | | | | 2,7 | 78 | 83 | 33 |
| | E(C) 30 - 90 | 6 | 15 | K/N - Float | 6 | | | | | 2,7 | 75 | 82 | 34 |

PYRANOVA®

| Product | Fire resistance class [EN 13501] | Thickness [mm] | Cavity [mm] | Counterpane | Thickness counterpane [mm] | Layer | Layer level | Weight [kg/m ²] | U _g -value [W/m ² K] Fill gas: argon | U _g -value [W/m ² K] Fill gas: air | g-value [%] | Light transmission [%] | R _w [dB] |
|---|----------------------------------|----------------|-------------|---------------|----------------------------|-------|-------------|-----------------------------|--|--|-------------|------------------------|---------------------|
| Monolithic glass types | | | | | | | | | | | | | |
| PYRANOVA® (without laminated safety glass) | | | | | | | | | | | | | |
| PYRANOVA® EW | EW 30 | 7 | | | | | | 17 | | 5,6 | 78 | 89 | 32 |
| PYRANOVA® EW | Ei(F) 15 / EW 30 | 11 | | | | | | 26 | | 5,5 | 74 | 87 | 32 |
| PYRANOVA® 30 | Ei(F) 30 | 15 | | | | | | 36 | | 5,4 | 72 | 86 | 38 |
| PYRANOVA® 45 | Ei(F) 45 | 19 | | | | | | 46 | | 5,3 | 78 | 83 | 38 |
| PYRANOVA® 60 | Ei(F) 60 | 23 | | | | | | 55 | | 5,1 | 76 | 87 | 41 |
| PYRANOVA® 90 | Ei(F) 90 | 37 | | | | | | 86 | | 4,7 | 71 | 84 | 44 |
| PYRANOVA® 120 | Ei(F) 120 | 52 | | | | | | 106 | | 2,6 | | 75 | 42 |
| PYRANOVA® (with laminated safety glass) | | | | | | | | | | | | | |
| PYRANOVA® EW | Ei(F) 15 / EW 30 | 10 | | | | | | 24 | | 5,5 | 71 | 87 | 36 |
| PYRANOVA® EW | Ei(F) 20 / EW 30 | 14 | | | | | | 32 | | 5,4 | 71 | 86 | 38 |
| PYRANOVA® 30 | Ei(F) 30 | 19 (3.3-2) | | | | | | 44 | | 5,4 | 66 | 84 | 39 |
| PYRANOVA® 30 | Ei(F) 30 | 19 (3.3-2-SC) | | | | | | 44 | | 5,4 | 66 | 84 | 40 |
| PYRANOVA® 30 | Ei(F) 30 | 24 (5.5-8) | | | | | | 58 | | 5,2 | 62 | 82 | 40 |
| PYRANOVA® 45 | Ei(F) 45 / EW 60 | 19 | | | | | | 44 | | 5,2 | 71 | 86 | 38 |
| PYRANOVA® 60 | Ei(F) 60 | 27 | | | | | | 61 | | 5,0 | 73 | 86 | 41 |
| PYRANOVA® 90 | Ei(F) 90 | 40 | | | | | | 93 | | 4,7 | 69 | 83 | 44 |
| PYRANOVA® 120 | Ei(F) 120 | 54 | | | | | | 112 | | 2,6 | | 75 | 44 |
| Insulation glass types | | | | | | | | | | | | | |
| DGU PYRANOVA® | Ei(F) 30 | 19 | 16 | K/N - Float | 6 | | | | | 2,6 | 69 | 76 | 41 |
| | Ei(F) 30 | 15 | 8 | K/N - VSG | 7 (3.3-2) | | | | | 3,0 | 65 | 76 | 41 |
| | Ei(F) 30 | 15 | 8 | K/N - VSG | 7 (3.3-2-SC) | | | | | 3,0 | 65 | 76 | 43 |
| | Ei(F) 30 | 15 | 15 | K/N - VSG | 7 (3.3.2) | | | | | 2,7 | 66 | 76 | 43 |
| | Ei(F) 30 | 15 | 15 | K/N - VSG | 7 (3.3.2-SC) | | | | | 2,7 | 66 | 76 | 45 |
| | Ei(F) 30 | 19 SC | 15 | K/N - VSG | 7 (3.3.2-SC) | | | | | 2,6 | 65 | 76 | 46 |
| | Ei(F) 30 | 19 SC | 15 | K/N - VSG | 9 (4.4.2-SC) | | | | | 2,6 | 63 | 75 | 47 |
| | Ei(F) 30 | 19 SC | 18 | K/N - VSG | 7 (3.3.2-SC) | | | | | 2,6 | 65 | 76 | 47 |
| | Ei(F) 60 | 23 | 15 | K/N - Float | 4 | | | | | 2,6 | 74 | 79 | |
| | Ei(F) 60 | 23 | 15 | K/N - Float | 6 | | | | | 2,7 | 72 | 78 | |
| | Ei(F) 60 | 27 | 15 | K/N - Float | 4 | | | | | 2,6 | 73 | 78 | |
| | Ei(F) 60 | 27 | 15 | K/N - Float | 6 | | | | | 2,5 | 71 | 77 | |
| | Ei(F) 60 | 23 | 16 | K/N - VSG | 7 (3.3.2) | | | | | 2,6 | 67 | 78 | 45 |
| | Ei(F) 60 | 23 | 16 | K/N - VSG | 7 (3.3.2-SC) | | | | | 2,6 | 67 | 78 | 47 |
| | Ei(F) 60 | 23 | 16 | K/N - VSG | 9 (4.4.2) | | | | | 2,6 | 66 | 77 | 46 |
| | Ei(F) 60 | 23 | 16 | K/N - VSG | 9 (4.4.2-SC) | | | | | 2,6 | 66 | 77 | 50 |
| Ei(F) 60 | 23 | 16 | K/N - VSG | 13 (6.6.2) | | | | | 2,5 | 63 | 76 | 47 | |
| Ei(F) 60 | 23 | 16 | K/N - VSG | 13 (6.6.2-SC) | | | | | 2,5 | 63 | 76 | 51 | |

K/N = soda-lime glass ; VSG = laminated safety glass

PYRANOVA® – laminated composite glass

This special glass is a clear, laminated composite glass that is made up of several thin panes of float glass. A transparent, fire resistant layer that foams up in the event of a fire has been placed between the panes. When used in fire resistant glazing, PYRANOVA® special glass prevents the passage of fire, smoke and heat radiation. Due to its structure, the standard construction of PYRANOVA® special glass provides protection from either side.

ISO PYRAN® and ISO PYRANOVA®

The stability of ISO PYRAN® and PYRANOVA® on exposure to UV radiation, as well as fluctuations in temperature and direct sunlight, makes it ideally suited for use in facades and roofs. While light transmission remains high, anti-glare protection is enhanced and unwanted heat and sound factors are tightly controlled.

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