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Technical Information Sheet 1

Fire Resistant Glass

PRODUCTS

There are various types of fire resistant glass's available and these will generally fall into one of three main categories which are Wired, Laminated and modified toughened.

WIRED PRODUCTS

These products are manufactured with a square steel wire mesh running through the glass which is designed to hold the glass together in the event of breakage or fire. Such products are available in both clear and textured (obscured) form and there are also some versions which are safety rated to BS EN 14449 3(B)3 for impact. These products are suitable for integrity only situations and do not offer any insulation. Products that are stocked by N&C Glass which fall into this category are:

Pyrostem Safety Clear, Georgian Wire Cast.

LAMINATED PRODUCTS

These products are manufactured by sandwiching one or more fire resistant intumescent interlayers in between two or more sheets of clear glass. Ranging in thickness from 7mm to 27mm, such glasses offer varying levels of protection in the event of fire and are also all safety rated for impact to BS EN 14449. As laminated glass's some of them can also offer the additional benefit of insulation from fire, meaning that although a fire may be raging on the other side, the protected side will remain cool to touch for periods of up to 60 minutes for single glazed panels. Amongst the laminated fire resistant glass products that are stocked by N&C Glass are:

7mm Pilkington Pyrodur Plus, 10 & 13mm Pilkington Pyrodur, 15, 18, 23 & 27mm Pilkington Pyrostop, 7.2mm Pyroguard in Clear, Satin & Obscure, 7mm Firedoor 60, 11, 15 & 23mm Pyroguard.

MODIFIED TOUGHENED

These products are manufactured by toughening glass and adding various metallic coatings to the surface or additional elements into the raw glass mixture in order to give the glass more resistance to heat in the event of fire. However in the same way as the wired products these types of glass can only be used in integrity only situations and do not offer any insulation at all. These are all manufactured to order and therefore are not normal stocked products. N&C Glass can obtain these products if required, and some examples of these glass types are:

Pyran 'S', Pyrocet, Pyrosec, Pyroclear.

DOUBLE GLAZED FIRE RESISTANT GLASS UNITS

All fire resistant glass's can be incorporated into double glazed units in order to meet either building regulations, extended fire protection criteria or for simple aesthetic purposes. N&C Glass can manufacture fire resistant units to attestation level one which will meet most customer requirements.

To conform to UK legal requirements, all fire rated units must be manufactured to attestation level one.

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The table below lists the products available from stock at N&C Glass along with their respective fire ratings and suitability for use in various situations and frame types.

Fire Resistance Integrity / Insulation	Product	Internal / External	Max Tested Size Timber * Doors/Screens	Max Tested Size Steel * Doors/Screens	Impact Rating To BS EN 14449	Acoustic Rating
30 / 0	Pyrostem Safety Wired Clear	Both	Doors 818 x 1980 high Screens 1208 x 2607 high	No Evidence For Doors Screens 1537 x 2600 high	3 (B) 3	31 dB
60 / 0	Pyrostem Safety Wired Clear	Both	626 x 1300 high doors No Evidence For Screens	No Evidence For Doors Screens 1488 x 2516 high	3 (B) 3	31 dB
30 / 0	7mm Pilkington Pyrodur Plus 30 - 104 EI15 / EW30	Internal	Doors 950w x 2050 high Screens 1093 x 2050 high	Doors 1069 x 2050 high Screens 1690 x 2050 high	2 (B) 2	35 dB
30 / 0	10mm Pilkington Pyrodur 30 - 201 EI15 / EW30	Both	Doors 965 x 2240 high Screens 2114 x 2523 high	Doors 1069 x 2415 high Screens 2561 x 3000 high	1 (B) 1	36 dB
60 / 0	13mm Pilkington Pyrodur 60 - 20 EI15 / EW60	Both	Doors 647 x 2017 high Screens 1400 x 2000 high	No Evidence For Doors Screens 1688 x 2033 high	1 (B) 1	38 dB
30/30	14mm Pilkington Pyrostop EI30	Internal	No Evidence For Doors No Evidence For Screens	No Evidence For Doors No Evidence For Screens	NPD	38 dB
60 / 30	15mm Pilkington Pyrostop 30 - 10 EI30	Internal	Doors 630 x 1790 high Screens 1750 x 3000 high	No Evidence For Doors Screens 1852 x 1852 high	2 (B) 2	38 dB
60 / 30	18mm Pilkington Pyrostop 30 - 20 EI30	External	Doors 630 x 1790 high Screens 1750 x 3000 high	No Evidence For Doors Screens 1852 x 1852 high	1 (B) 1	38 dB
60 / 60	23mm Pilkington Pyrostop 60 - 101 EI60	Internal	Doors 793 x 1791 high Screens 1750 x 3000 high	Doors 785 x 2280 high Screens 1495 x 2895 high	1 (B) 1	40 dB
60 / 60	27mm Pilkington Pyrostop 60 - 201 EI60	External	Doors 793 x 1791 high Screens 1750 x 3000 high	Doors 785 x 2280 high Screens 1495 x 2895 high	1 (B) 1	41 dB
30 / 0	7.2mm Pyroguard EW30	Both	Doors 760 x 1846 Screens 1070 2675	Doors 835 x 2066 Screens 902 x 2750	2 (B) 2	33 dB
60 / 0	7mm Firedoor FD60	Both	Doors 375 x 1552 No evidence for Screens	No evidence for Doors No evidence for Screens	3 (B) 3	33 dB
30 / 0	11mm Pyroguard EW30	Both	Doors 864 x 2085 Screens 1695 x 3051	No evidence for Doors Screens 1500 x 2500	1 (B) 1	35 dB
60 / 0	11mm Pyroguard EW60	Both	Doors 508 x 1200 Screens 812 x 2500	No evidence for Doors Screens 960 x 2160	2 (B) 2	35 dB
60 / 30	15mm Pyroguard EI30	Internal	Doors 1051 x 2794 Screens 3179 x 3179	Doors 1380 x 3205 Screens 2840 x 2840	1 (B) 1	38 dB
60 / 60	23mm Pyroguard EI60	Internal	Doors 495 x 1320 Screens 2000 x 2500	Doors 1270 x 2694 Screens 3100 x 3100	1 (B) 1	40 dB

* If your sizes exceed the maximum tested sizes shown above, please contact N&C Glass for further advice.

Improved fire ratings are available for I G Units, please contact N&C Glass for further information.

Information is for guideline purposes only. In order for products to meet their respective fire resistance requirements, they must be installed into an approved framing system using only materials specified in the relevant fire certificate test summary.

Copies of all fire certificate test summaries are available upon request.

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