



Manual Attack & LPS 1270 Datasheet

There are a wide range of laminated security glass products satisfying a diverse range of requirements including:

BS EN 356
 DIN 52290
 LPS 1270 SR Levels

BS EN 356 & DIN 52290

The standard product comprises two layers of annealed float glass bonded together with a 1.5mm thick polyvinyl butyral (PVB) interlayer. Enhanced security is achieved by increasing the number and/or thickness of glass layers and interlayers. Options can be provided with a “low spall” rear face to give maximum protection from flying glass splinters. Typical applications include jewellery shops, display cases, and other vulnerable areas where the possibility of break-in exists.

Where enhanced security is required we would recommend the use of products meeting the more stringent requirements of BS EN 356. These products are normally constructed using glass clad polycarbonate which combine the chemical and abrasion resistance of glass with the impact resistance of polycarbonate. The key advantage over standard laminated glass products is that the weight of the glass is reduced whilst improving the level of protection.

DIN Class	EN Class	Thickness mm	Makeup
DIN 52290-4:A1	EN 356 P2A	8.8	Glass/PVB
DIN 52290-4:A1	EN 356 P2A	10.8	Glass/PVB
DIN 52290-4:A1	EN 356 P2A	12.8	Glass/PVB
DIN 52290-4:A1	EN 356 P2A	16.8	Glass/PVB
DIN 52290-4:A3	EN 356 P4A	9.5	Glass/PVB
DIN 52290-4:A3	EN 356 P4A	11.5	Glass/PVB
DIN 52290-4:A3	EN 356 P4A	13.5	Glass/PVB
DIN 52290-4:A3	EN 356 P4A	17.5	Glass/PVB
	EN 356 P6B	18	Glass/PVB
	EN 356 P6B	14	Glass/Poly/Glass
	EN 356 P7B	28	Glass/PVB
	EN 356 P7B	16	Glass/Poly/Glass
	EN 356 P8B	36	Glass/PVB
	EN 356 P8B	18	Glass/Poly/Glass



LPS 1270 SR Levels

The Standard LPS 1270 is for the 'Requirements and testing procedures for the LPCB approval and listing of intruder resistant security glazing units'.

The purpose of this standard is to evaluate the resistance to unauthorised access offered by security glazing units. The standard specifies eight grades of security according to the tools and time likely to be used by a criminal. It is based on the same classification system contained within LPS 1175, this enables specifiers to select security glazing that provide defined levels of security matching their needs.

For LPS 1270, scorings are required for three hole sizes, of which a final three digit score rating is achieved, eg 1-2-2, or 2-2-4, etc. The sizes and purpose of these holes are as follows:

1st Digit - Local Penetration - 8mm (-0mm/+3mm) by 25mm (-0mm/+3mm) rectangular section.

This is to determine resistance to the creation of a hole through which a piece of wire, screwdriver, lever, or other such device can be passed in order to operate a panic bar, emergency lever handle or other non-deadlocked device capable of releasing the bolt-work on the item or an item directly adjacent to that in which the glazing is mounted.

2nd Digit - Hand Hole - 60mm (-0mm/+3mm) diameter.

This is to determine resistance to the creation of a hand hole through which the attacker can either, directly access the valuables within or reach through the aperture to operate an unprotected thumb-turn or latch to release the bolt on an adjacent door and gain complete access.

3rd Digit - Complete Access - Elliptical section of 400mm (-0mm/+3mm) major axis by 225mm (-0mm/+3mm) minor axis

This directly reflects the size of the aperture specified in LPS 1175 and ensures the glazing offers resistance to complete access through the glass commensurate with that provided by products approved by LPS1175. The same attack test requirements for LPS 1175 are conducted for LPS 1270 test specimens, whereby the tester has access to a specified tool set/s and a predetermined period of time in which to create the required hole size. There are 8 Security levels for LPS 1270 and LPS 1175 of which Level 1 is the weakest and 8 being the highest level of security afforded. The security rating requirements for each security level can be seen in the chart below with the required tool category tested

Security Rating Classification	Tool Category	Maximum working time (minutes)	Maximum test duration (minutes)
0	The glazing fails to achieve the manual intervention attack resistance requirements defined for security rating 1.		
1	A	1	10
2	B	3	15
3	C	5	20
4	D	10	30
5	D+	10	30
6	E	10	30
7	F	10	30
8	G	20	60

LPS 1270 & 1175 Tool Categories

LPS 1270 and LPS 1175, which are the requirements and testing procedures for the LPCB approval and listings of intruder resistant security glazing units and building components, strongpoints, security enclosures and barriers respectively, use the same tool categories and attack durations to determine the attack resistance of the products, for a full breakdown of the tool sets used please contact us.



There are a wide range of glass constructions, thicknesses and weights available which meet LPS 1270 glass standards. To help us match a product to your particular requirement please contact our technical team on the number or email address below.

**Overall glass makeup thickness and weight depends on glass processor*

**Maximum sizes available on request*