



UNIGLAS®
IT'S CLEAR

UNIGLAS®
IT'S CLEAR

Arguments for UNIGLAS® | PHON Sound Reduction Glass

- individually matched soundproofing
- noticeably better well-being with light and transparency
- fully adequate noise and thermal insulation
- freely combinable with sun and break-in protection as well as falling protection
- increases the value of the property



Our proximity: your advantage



UNIGLAS GmbH & Co. KG
Robert-Bosch-Straße 10
D-56410 Montabaur
Telefon: +49 (0) 2602/94929-0
Fax: +49 (0) 2602/94929-299
E-Mail: info@uniglas.de



© UNIGLAS® 12/2012

UNIGLAS® | **PHON**
Sound Reduction Glass



www.uniglas.net



UNI GLAS® | PHON

Sound Reduction Glass

UNI GLAS® | PHON sound reduction glass turns your living space into a relaxation area. How it works is incredibly simple: the asymmetric glass construction and the use of special laminated glass dampens the sound waves and therefore effectively reduces the noise level.

UNI GLAS® | PHON sound reduction glass sound reduction glass is divided into three categories for achieving the desired level of insulation:

- single panes of different thickness inside and outside. This is the simplest way of transparent noise protection. If the two panes of insulated glass are of different thicknesses, very good sound insulation values are achieved due to the different coincidence frequencies of the glass panes. By enlarging the unit cavity, the sound insulation values are normally increased but there are limitations. On the one hand, the heat transmittance coefficient slightly increases with a larger cavity and on the other hand the insulated glass effect becomes significantly

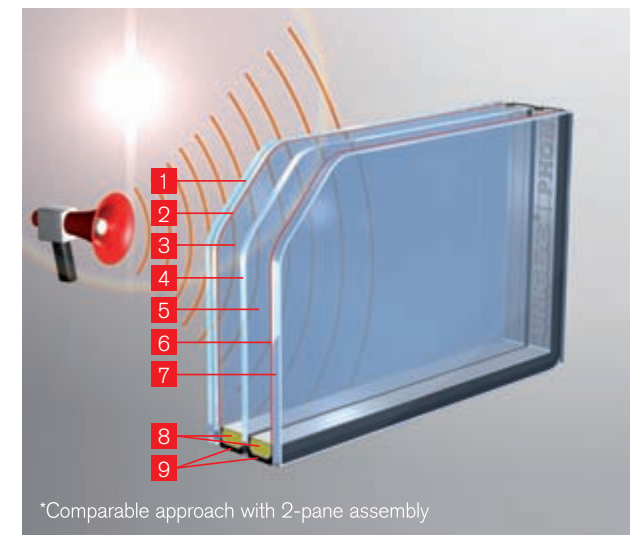
more intense due to the larger gas volume so that insulated glass with a larger cavity often requires toughened glass (ESG) to be used for the thinner pane for static reasons.

- If there are higher requirements with regard to sound insulation, one or more panes of the insulation glass are made of laminated or laminated safety glass. The laminated glass is made of float glass panes, which are flexibly connected by means of a special transparent intermediate layer according to the principle of a flexible shell.
- With UNI GLAS® | INC (Noise Control Foils) intermediate layers are inserted as required especially for means of noise protection or also in combination with safety properties, up to P4A safety glass. These special VSG foils are also perfectly suitable for overhead glazing as they strongly absorb the beating noise of rain.

According to each source of noise, location and how a space is used, the individual noise control concept is adapted to you and your object. Your UNI GLAS®-partner is will be happy to help you select the right glass.

Example 3-pane assembly*

1. Laminate shatter-proof glass with sound proof film
2. Precious metal coating
3. Space between panes with inert gas filling
4. Float glass pane
5. Space between panes with inert gas filling
6. Precious metal coating
7. Float glass pane
8. Spacer with drying agent
9. Double edge sealant



*Comparable approach with 2-pane assembly