



Glass, the ideal building material, if you prefer an open way of working



Glass wall system

clean-tek glass walls are made entirely of glass. Glass is an **ideal building material** for the life sciences industry. This glass is resistant to almost any chemicals. It neither can be scratched nor dented and adhered dirt can be removed easily.

Benefit from our experience

Our long experience with all-glass walls in the life sciences industry has shown that glass breakages are uncommon – because staff is more careful when dealing with glass, than with an apparently solid partition wall. However, you cannot exclude the possibility of the glass breaking entirely.

Transparency and Safety

Glass walls create transparency. They allow to see into the production process and create a different, **working atmosphere**. In this way, you avoid staff feeling isolated in small, closed rooms and thereby their safety is increased by an easier supervision of their workstations. Last, but not least, it encourages tidiness in production, because everything is visible.

Of course, to build a factory entirely out of glass walls is not possible. As a result, clean-tek glass walls can be combined with our metal partition walls without any problem.

Anything is possible: even double-glazed glass walls with an **enhanced sound insulation** of 40 dB.

Fire protection

clean-tek builds fire walls for room heights of up to 5,500 mm with one or two-sided **GMP** cladding. Glazing can also be fitted into these walls flush on both sides. There are likewise door systems that are tailored to the system with glazing that is **flush on both sides**.



Outstanding design opportunities with the combination of various wall modules



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Technical data

Aluminium profile

Wall thickness	Aluminium profile system with 50 mm
Wall height	Up to 2.500 mm (with 10 mm glass thickness) Up to 3.500 mm (with 12 mm glass thickness) Up to 4.000 mm (with 15 mm glass thickness)
Ground rail track	Necessary for levelling floor irregularities +/- 20 mm

Glass

Weight	2,5 kg per m ² and per mm glass thickness
Light transmission*	With nominal thickness of 3 – 19 mm: 88 – 72 %
Thermoshock resistance**	140 – 180 K
Application temperature (maximum)***	Short term 300° C Permanent 250° C
Resistance to thermal gradients**	80 – 150 K
Impact-resistant**	3-times increased compared with not pre-stressed glass
Bending strength**	(Minimum DIN 1249) 12 N/mm ² (for floatglass)
Linear thermal expansion coefficient	$8 - 9 \cdot 10^{-6} \text{ K}^{-1}$
Specific thermal capacity	800 J/(kg • K)
Thermal conductivity	0,8 [W/(m • K)]
Manufactured according to	DIN 1249 Part 12/BS 3193/EN 12150/EN 60598

* minimum values are valid for clear ESG made of floatglass.

** These values are standard values, which can vary according to dimension, processing, thickness and installation conditions.

*** The thermal toughening decreases in the case of heat exposure, but not linear. There will be at a temperature of 315°C after 10 hours a tension of 90 % left, after 100 hours a tension of 85 %... After 100.000 operating hours the tension is about 70 %. The raise of temperature increases the reduction.