



This factsheet has been prepared by Groundwork to help businesses on the race to Net Zero.

DOUBLE AND TRIPLE GLAZING WINDOWS

Double glazing and triple glazing windows are energy-efficient solutions designed to reduce energy consumption, improve insulation and reduce heat loss in buildings. They consist of multiple glass panes with a layer of insulating gas or a vacuum in between, providing enhanced thermal performance (Thermal performance is a measure of how well a building or other object resists heat transfer) compared to single-glazed windows.



WHY DO THEY WORK?

1. Double Glazing:

- > Two glass panes separated by a gap filled with insulating gas or air.
- > Improved insulation and noise reduction compared to single-glazed windows.
- Enhanced energy efficiency by reducing heat loss in colder weather and heat gaining warmer weather.
- > Various frame materials can be used such as uPVC (plastic), aluminium, or timber.









2. Triple Glazing:

- > Three glass panes separated by two insulating gaps filled with gas or air.
- > Superior thermal performance and noise reduction compared to double glazing.
- > Provides excellent energy efficiency, minimising heat loss and maximising heat retention.
- > Suitable for areas with extreme climates or where higher insulation is desired.

KEY BENEFITS

- **1. Energy Efficiency:** Both double glazing and triple glazing windows improve energy efficiency by reducing heat transfer, resulting in lower heating and cooling costs for buildings. Enhanced insulation helps maintain a comfortable indoor temperature year-round.
- 2. Noise Reduction: The additional glass panes and insulating layers in both window types significantly reduce external noise, creating a quieter indoor environment.
- **3. Thermal Comfort:** Double glazing and triple glazing windows help eliminate cold spots and drafts, ensuring consistent indoor temperatures and improved thermal comfort.
- **4. Condensation Control:** The multiple layers of glass and insulating gaps help minimise condensation on the window surface, reducing the potential for Mold and moisture-related issues.

CONSIDERATIONS:

- **1. Cost:** Triple glazing windows are generally more expensive than double glazing due to the additional materials and installation complexity. Budget and long-term cost savings will need to be considered
- 2. Weight and Frame Strength: Triple glazing windows are heavier, requiring stronger frames to support the additional weight. Ensure your window frames are suitable for triple glazing.
- **3. Space Requirements:** Triple glazing windows have a larger profile than double glazing, requiring more space for installation. Ensure you have adequate space for the frames and glass units.
- **4.** Climate Considerations: Triple glazing is recommended for areas with extremely cold climates or high noise pollution levels. Double glazing is a more suitable option for moderate climates.

It is important to consult with a qualified installer to discuss your specific needs and to get an estimate for the cost of installation.







