

# **Double glass components can make glass stronger**





## Overview

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This innovative glass solution consists of two layers of tempered glass panels, processed through a specialized heat treatment that creates a product four to five times stronger than standard glass. How does the composition of glass affect its strength?

The composition of glass strongly affects its strength, as certain elements can increase its strength and durability. Additionally, the thickness of the glass also affects its strength; thicker glass is generally stronger than thinner glass. There are several methods of making glass stronger.

Why is glass so strong?

The glass retains more of its strength even after a minor nick or scratch, protecting it from more cracks and flaws. Some advanced glasses have special compositions that help mitigate this possibility — but it's the super-tough surface created by the ion exchange process that provide the first line of defense against everyday hazards.

How do you make glass stronger?

There are several methods of making glass stronger. The most common methods are heat treatment, chemical strengthening, lamination, and coating. Each of these methods has its own advantages and drawbacks, making it important to understand the differences between them before deciding which one is best for your needs.

What is chemical glass strengthening?

Of the various glass strengthening techniques, chemical strengthening (also called “ion exchange strengthening”) is a relatively newer technology (discovered in 1962) that is attracting much attention lately. The early prime use has been the aircraft cockpit windshield which must be designed to withstand impact of birds flying at 400 knots.



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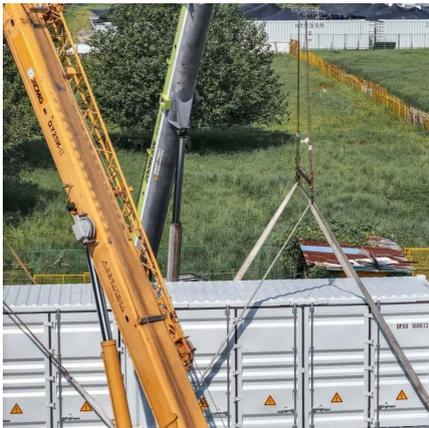
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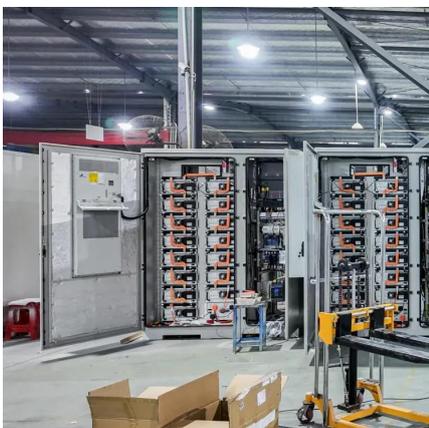


### The strength of glass

Here they want to restore historic damaged monuments by replacing the missing components with glass. But for the remains of this day, all that's left to do is to make sure the oven is set ...

### How It Works: Strengthening Glass , Science ...

Corning's glass scientists are constantly stress-testing glass and improving both compositions and chemical strengthening processes like ion ...



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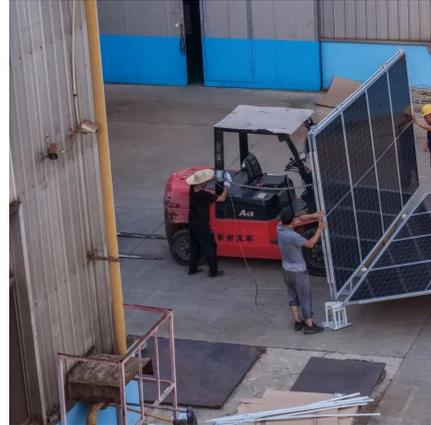
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