

# StrongEdge™

## Carbon Fiber Door & Window Corner Reinforcement Kit

Reinforcing the most crack-prone door and window corners to protect the entire structure from the edges outward.

- ◆ Strengthens corners, reinforces structure, and prevents cracking
- ◆ Patented ring-shaped support and arc-guided force-distribution design
- ◆ Fast and easy installation with no formwork damage



### Why Do Door and Window Corners Crack Easily?

#### Stress Concentration at Corners

Window and door corners are structural weak points where loads or seismic forces tend to concentrate.

#### Thermal Expansion and Contraction

Temperature changes cause the wall and window frame to expand and contract at different rates, leading to cracks at the joints.

### Potential Consequences of Corner Cracks

#### Waterproofing Failure

Once cracks form, the waterproof layer degrades, leading to serious leakage problems.

#### Reduced Durability

Long-term temperature changes, earthquakes, and seasonal winds can worsen cracks, accelerate corrosion and reduce durability.

#### Visual and Confidence Impact

Cracks harm the building's appearance and reduce consumer confidence in construction quality.

#### Higher Warranty and Repair Costs

New buildings carry warranty obligations, and without proper prevention, later repairs can become time-consuming and costly.

## 【Product Information】

- ◆ Product Name : **StrongEdge™** Carbon Fiber Door & Window Corner Reinforcement Kit
- ◆ Brand : THERMOLYSIS
- ◆ Manufacturer : Thermolysis Co., Ltd.
- ◆ Materials : Chopped Carbon Fiber, Polypropylene (PP)
- ◆ Product Dimensions : Diameter 31.25 cm, Thickness 1.3 cm
- ◆ Product Weight : 183g
- ◆ Installation Method : Tie directly onto the double-layer wall reinforcement; no nailing required and no damage to the formwork structure.

## 【Product Features】

### Special Structural Design

Designed for high-stress door and window corners, the dual-ring structure lets cement slurry pass through for better compaction, while the notched design improves bonding with the corner.

### Lightweight and Durable Composite Material

Made from recycled carbon fiber blended with polypropylene (PP), offering high toughness, low weight, and excellent rust and corrosion resistance.

### Arc-Guided Force-Distribution Design

The first ring intercepts initial cracks and disperses stress, while the second ring adds resistance to prevent cracks from spreading through the wall.

### Rebar-Inspired Surface for Stronger Grip

The ribbed, rebar-like texture increases contact area with concrete, improving grip, stability, and overall structural integration.

### Quick and Easy Installation

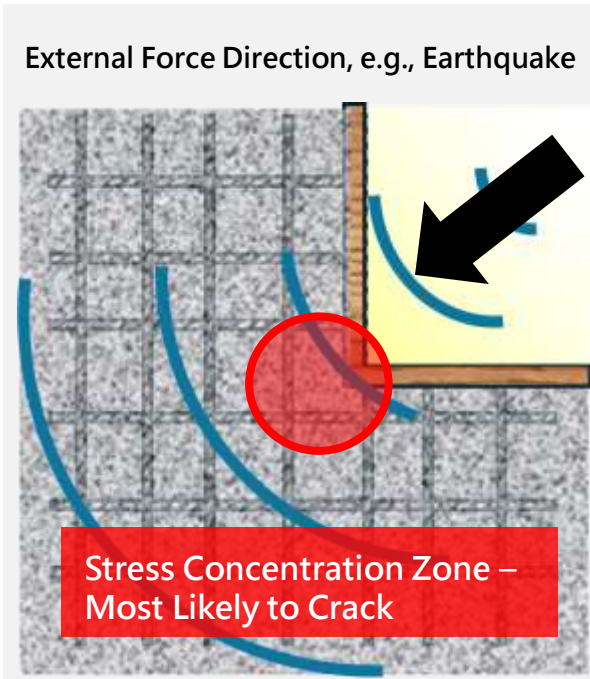
Can be tied directly onto double-layer wall rebar with no drilling or formwork damage, ensuring fast and stable installation.

### Patented Design

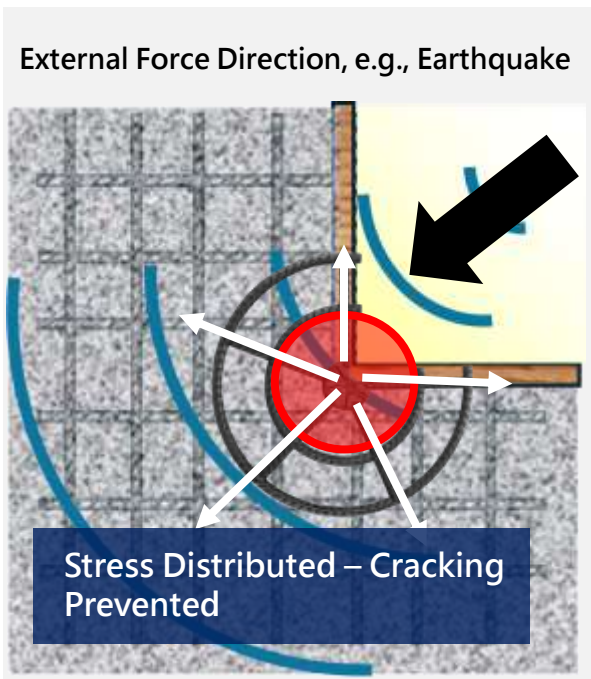
Protected under Patent Application No. 114206226, this unit is engineered to disperse corner stress, prevent cracking, and enhance the durability and structural safety of concrete door and window openings.

# Distributes stress and prevents cracking

Not Using the Product

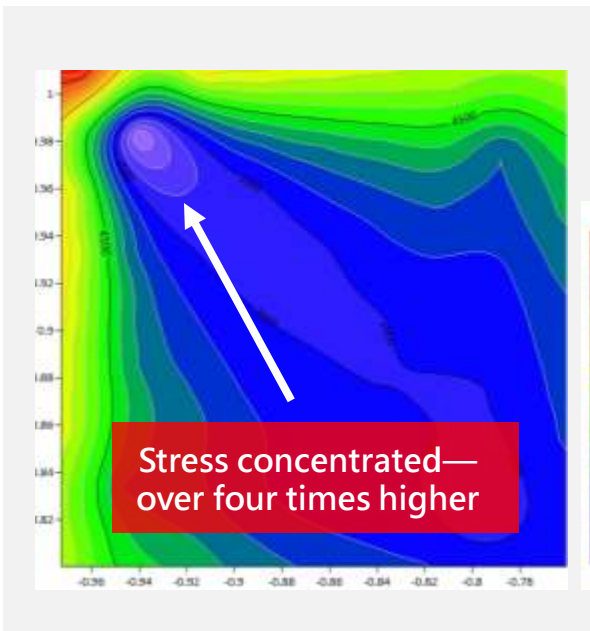


Using StrongEdge

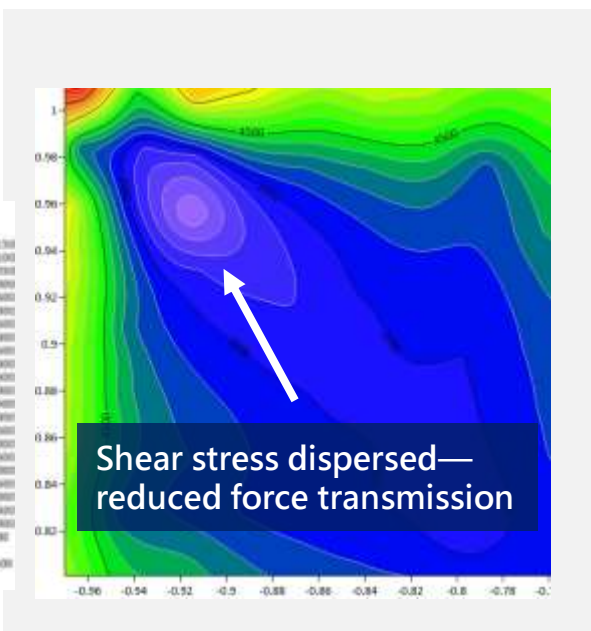


## Dispersing Shear Stress at Window Corners to Improve Ductility

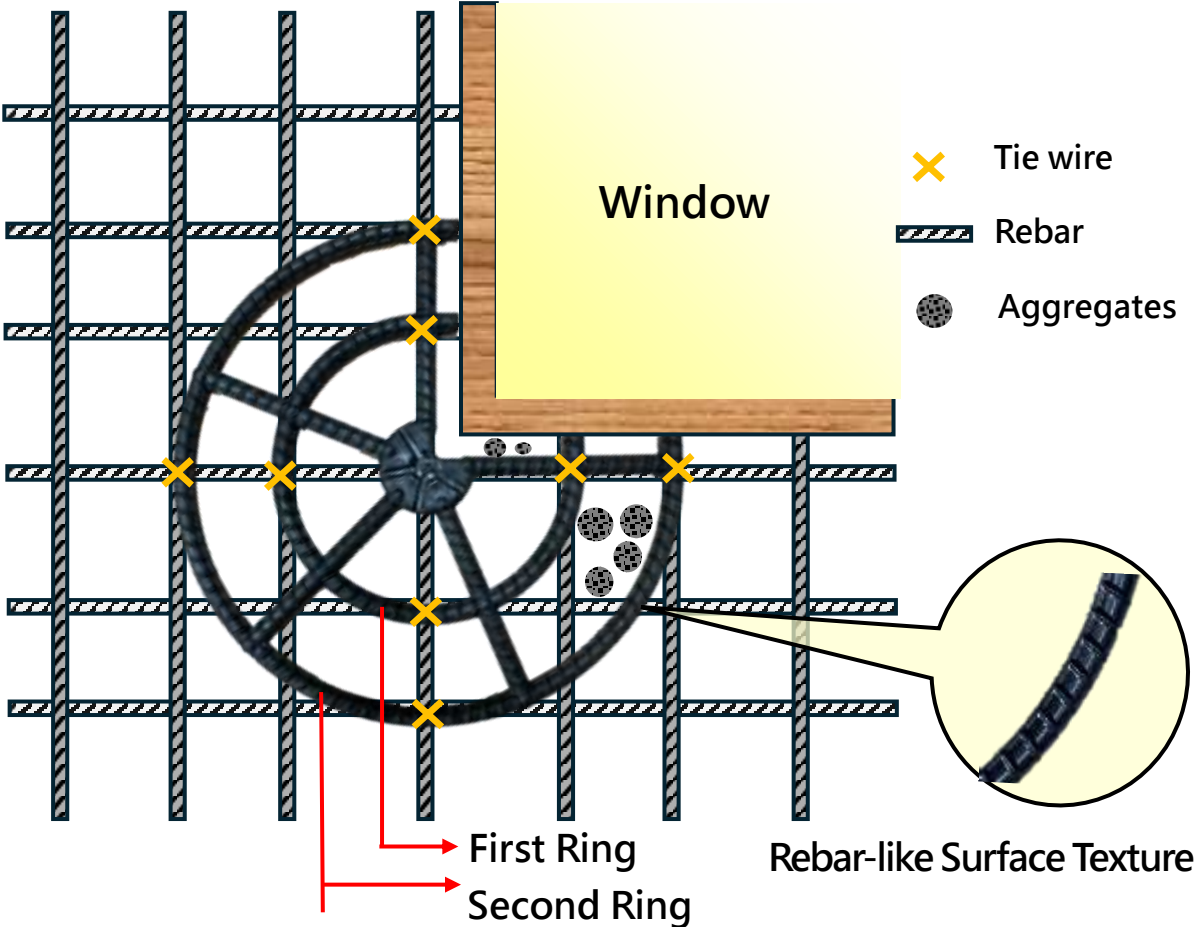
General RC Wall



RC Wall with StrongEdge Installed



【Installation Method】



【Application】





# Comparison Overview

Item	Conventional Products	<i>StrongEdge</i>
Weight	Heavy (Density 7.8)	<i>Light (Density 1.2)</i>
Workability	Small voids; prone to insufficient grout filling	<i>Easy grouting with complete filling, no material shortage</i>
Corrosion Resistance	Prone to rust	<i>Will not rust</i>
Thermal Expansion	High thermal expansion and contraction	<i>Low thermal expansion and contraction</i>
Bonding	Difficult to bond or lacks bonding features	<i>Easily tied and integrated with rebar</i>
Price	High cost	<i>Competitive pricing</i>

## One-Time Installation, Long-Term Peace of Mind

Thermolysis Building Materials deliver durable protection for your structures.

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