

BUILDING SCIENCE SHOWS WHY GAPPING IS A GOOD DESIGN PRACTICE

All roof cover boards are subject to structural and material movements, and good design practice accounts for these intrinsic movements. To ensure you're getting the greatest performance out of your cover board, it's critical that you have an understanding of the dynamics of these movements when making your choice.

As a part of our commitment to the roofing industry to deliver the highest-performing products, USG Research conducted extensive testing of our roof board products, as well as competitive products, in an effort to better understand how cover boards are impacted by structural, thermal and hygro expansion of materials. The testing results show that the negative effects of movement and material expansion can be minimized or eliminated through the use of correct gapping. In the event correct gapping does not take place, weaker cover boards may experience delaminated facers and/or crushing of the soft/brittle core material beneath the membrane. Alternatively, issues with stronger panels can become apparent through visible buckling on the surface of the membrane.

The following are published hygro and thermal expansion coefficients that have been verified to be accurate:

	COMPETITIVE GLASS-MAT ROOF BOARD	CGC SECUROCK® BRAND GYPSUM-FIBER ROOF BOARD	CGC SECUROCK® BRAND GLASS-MAT ROOF BOARD
Linear variation with change in temp., in/in °F (thermal expansion coefficient)	8.5×10^{-6}	8×10^{-6}	8.5×10^{-6}
Linear variation with change in moisture, in/in %RH (hygro expansion coefficient)	6.25×10^{-6}	8×10^{-6}	6.3×10^{-6}

Equally important to correct gapping, it's also imperative that the manufacturer's installation instructions and technical literature be carefully reviewed and followed at all times.

At CGC, our steadfast dedication to the company's core business beliefs has helped us consistently manufacture the high-quality products that you expect, backed by the service and support you can depend upon. All so you can rest easy that your vision will always be covered by the best.

CGC Securock® Brand Gypsum-Fiber Roof Board

- Cover board for fully adhered systems
- Exceptional bond and low surface absorption
- Superior wind uplift
- 97% recycled content



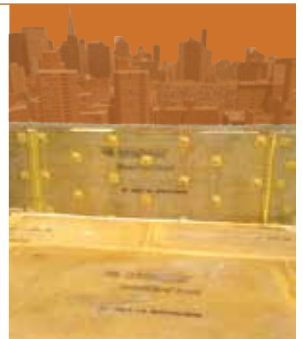
CGC Securock® Brand Glass-Mat Roof Board

- Cover board for mechanically attached systems
- Less itchiness thanks to a tighter mat
- Scores and snaps cleanly and easily
- Unlimited slope in fire barrier applications



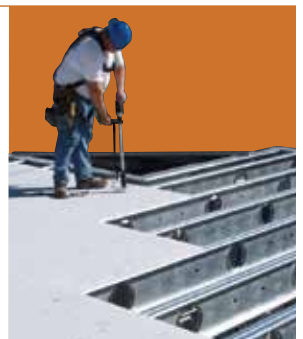
CGC Securock® Brand Cement Roof Board

- Lightest cement board in the industry
- Easy to cut and fasten
- Ideal for liquid applied systems
- Noncombustible



CGC Securock® Brand Concrete Roof Deck Panel

- Alternative to traditional roof decks
- Easy to install
- Noncombustible
- Superior uplift strength



PRODUCT INFORMATION

See cgcinc.com for the most up-to-date product information.

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