



The Facts about the Component Modeling Approach (CMA)

For the past 20 years, the National Fenestration Rating Council (NFRC) has provided a fair, accurate, and credible rating and labeling system for windows, doors, and skylights used in residential construction. Now NFRC is providing the non-residential market with a powerful and exciting online program known as the Component Modeling Approach (CMA).

What is CMA?

CMA is a groundbreaking concept in the non-residential fenestration industry. It offers performance information on fenestration components through an online database. This is essentially a library that houses data on a wide variety of fenestration components and is available all the time from anywhere in the world.

CMA shows how changing one component affects overall energy efficiency and provides information on which components can be combined. Ultimately, the information obtained from CMA can be used to determine a whole product energy performance rating for a fenestration system.

This rating information is incorporated into a CMA Label Certificate for product validation. The label certificate lists the performance for all fenestration systems for a given building project.

Furthermore, any products certified for a particular project can be used in subsequent projects without recertification. Finally, components and certified products are maintained indefinitely in CMA.

How is CMA organized?

CMA is organized into three primary components:

Glazing	Frame	Spacer
Optical/spectral data from the International Glazing Database	Thermal performance data of frame cross-sections	Thermal performance of spacer component materials

Why did NFRC create CMA?

NFRC developed CMA to:

- Ease market transformation in the commercial fenestration industry by encouraging broad access and use of CMA.
- Provide a fair, level playing field among competitors for marketing energy-efficient fenestration products and components.
- Assist the building code community through the use of the CMA for determining the compliance of fenestration products to state and local energy codes.

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NFRC provides accurate, credible energy performance ratings for windows, curtain walls, doors, skylights, and fenestration attachments. For more information on NFRC, please visit our Web site at www.nfrc.org or contact NFRC directly at 301-589-1776.

What's in it for me?

Architects and builders:

- Designing envelope/fenestration systems for maximum energy efficiency – whether for solar control, energy efficiency, daylighting, or passive solar design
- Comparing the energy performance of different fenestration components and products, and making more informed choices
- Enforcing – relate specified performance to installed performance

Building officials, state government employees, and others involved in code development and enforcement:

- Establishing realistic prescriptive energy codes for fenestration products (windows, doors, curtain walls, skylights)
- Determining if fenestration products meet local energy codes

Government- and utility-run energy-efficiency programs:

- Promoting advanced building technology
- Establishing demand-side management programs based on fenestration product performance
- Determining if the products installed meet the performance requirements of those voluntary programs

Manufacturers/contractors:

- Standardizing bid reports, showing that your products meet both the building specification and the local energy code requirements
- Determining and reporting the energy benefits of new designs or technology accurately
- Utilizing the most efficient components using a reliable design tool

How can I learn more about CMA?

Please contact NFRC's CMA Program Manager, Jessica Ferris, at jferris@nfrf.org for more details.

