



One Crescent Center, Philadelphia

> Q u a l i t y  
Sustains

Planning a green building? YKK AP can help.

Entrances | Storefronts | Curtain Walls | Sun Controls | Windows | Balcony Doors



Quality  
inspires™

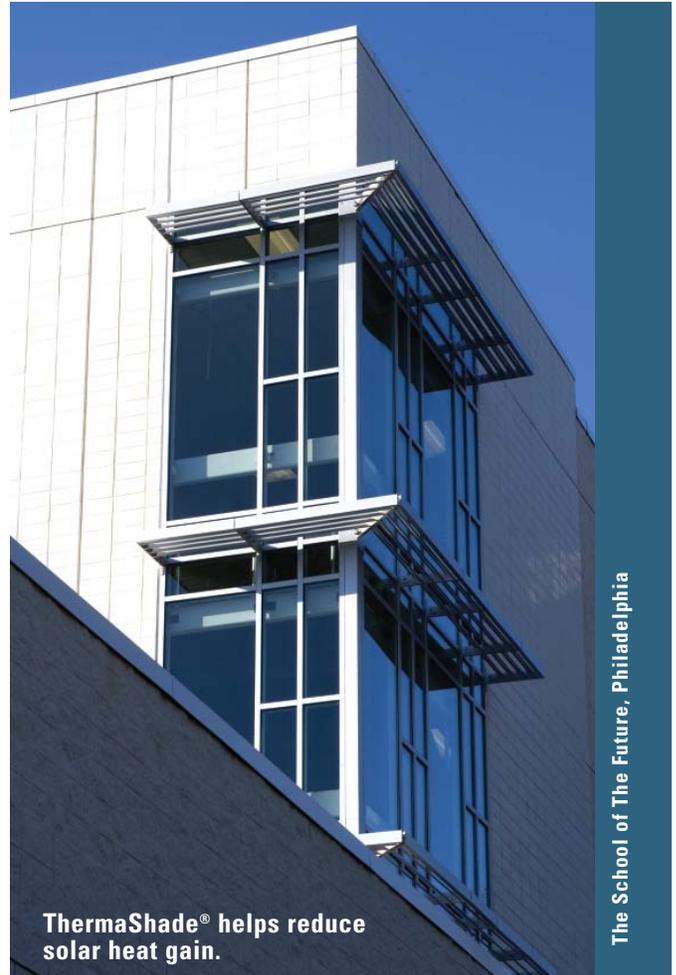
# Sustainable Building Envelopes

Architects, builders and developers of commercial buildings are embracing “green” design—best practices for design and construction that significantly reduce or eliminate negative effects of buildings on the environment and occupants.

Architectural products from YKK AP are always a smart choice for green buildings. YKK AP is a leading resource for quality materials used in commercial buildings designed and constructed for LEED® certification. We offer a wide selection of energy-efficient, thermally-broken products, as well as custom-crafted solutions for high performance green buildings.

With YKK AP, you have a dedicated partner in green building design and sustainability. We work with you to create innovative, high quality architectural systems that add to the strength, energy efficiency and longevity of the building envelope, including:

- entrances
- storefronts
- window walls
- curtain walls
- operable windows
- sliding doors
- sunshades
- light shelves



ThermaShade® helps reduce solar heat gain.

The School of The Future, Philadelphia

## LEED Certification of Your Green Building

YKK AP professionals assist architects, developers, owners and builders in gaining LEED certification of their building designs. LEED is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings.

In its ongoing efforts to define what constitutes a “green building,” the U.S. Green Building Council® has published a portfolio of LEED certification rating systems for different types of buildings. These include New Commercial (NC) and major renovation, Core & Shell (CS), and Schools.

# Guide to Potential LEED v3 (2009 Edition)

This Brochure explains in broad terms how commercial fenestration systems from YKK AP can help architects, builders, owners and developers meet key parts of the USGBC's LEED-NC (New Construction) Version 3 (2009 edition) rating system. Most of the credit discussion herein can be used for Core & Shell (CS), Schools, and Healthcare facilities as well.

Architectural products from YKK AP address three of the five LEED-NC categories of prerequisites and credits: Energy & Atmosphere (EA), Materials & Resources (MR), and Indoor Environmental Quality (IEQ).

## Energy & Atmosphere

***EA Credit 1: Optimize Energy Performance  
(NC 1-19 Points; CS 3-21 Points; Schools 1-19 Points)***

To reduce energy consumption and improve indoor environmental quality, YKK AP offers a full line of thermally-broken, energy-efficient framing and operable window solutions as well as sunshades and light shelves. Our interior light shelf called Luminance® that can be mounted to our framing systems is used to direct diffused natural light further into the building thus reducing the daytime lighting loads. Our ThermaShade® sunshade is designed to reduce the Solar Heat Gain Coefficient (SHGC) reducing cooling loads within the building as well as reducing heating loads with its thermally broken anchor when applied to our curtain wall framing systems.

Our MegaTherm® and ThermaBond Plus® Systems, which join extrusions into one thermally-broken frame, save energy and increase condensation resistance.

***EA Credits 2: On Site Renewable Energy***

Photovoltaic (PV) panels can be glazed into YKK AP products, such as storefronts, window walls, and curtain walls

## Materials & Resources

***MR Credit 4: Recycled Content (NC, CS, & Schools: 1-2 points) & MR Credit 5: Regional Materials (NC, CS, & Schools: 1-2 points)***

To ensure product quality, consistency and integrity, YKK AP produces its own aluminum alloy. Our products contain a minimum of 30% by weight pre-consumer recycled aluminum – from internal processes and selective external recycling resources to maintain our high quality.

The aluminum content of YKK AP's products is fully recoverable at end of their useable life. LEED v4 is addressing this very virtue.

## Indoor Environmental Quality

***IEQ Credit 2: Increased Ventilation (NC, CS, & Schools: 1 point) & IEQ Credit 6.2" Controlability of Systems – Thermal Comfort (NC, CS, & Schools: 1 point)***

YKK AP offers a complete line of operable window and door systems that allow natural ventilation in lieu of comfort controls. Available features include concealed vents, projected windows, single or double-hung windows, horizontal sliders, terrace doors, and sliding glass doors.

***IEQ Credit 7.1 Thermal Comfort – Design  
(NC, CS, & Schools: 1 point)***

YKK AP offers innovative thermal breaks as previously described with our MegaTherm® polymer and our ThermaBond Plus® pour and de-bridged to help control the thermal comfort of the occupants. YKK AP also offers a MegaTherm pressure plate to reduce energy consumption and increase thermal comfort.

***IEQ Credit 8.1 Daylight and Views – Daylight (NC 1 point, CS 1 point, & Schools: 1-3 points) IEQ Credit 8.2 Daylight and Views - Views***

Architects can introduce available natural daylight and views with the complete line of YKK AP architectural aluminum framing systems – entrances, storefronts, curtain walls, window walls, sun controls, windows, and balcony doors.

***IEQ Credit 9 Enhanced Acoustical Performance (Schools 1 point)***

YKK AP products are acoustical tested, contact YKK AP to help provide solutions to achieve the desired performance to meet this credit.

***IEQ Credit 10 Mold Prevention (Schools 1 point)***

YKK AP products provide excellent condensation resistance ratings to mitigate the mold on surrounding building products.

***ID Credit 1: Innovation in Design***

YKK AP can provide more post or pre-consumer aluminum recycled content on certain projects. The project must be reviewed prior to quotation to make sure we can meet the desired criteria and meet the project's schedule.

# Beyond LEED Certification

LEED certification is just one step in taking sustainability from a concept to meaningful action.

Sustainability is based on the belief that new development must meet the needs of the present without compromising those of the future. Sustainability is measured in three interdependent dimensions: the environment, economics, and society—often referred to as the triple bottom line.

YKK President Tadahiro Yoshida was clearly in the vanguard of this philosophy in 1994 when he wrote the YKK Environmental Charter:

*"It is a most important duty for all mankind that we preserve the abundantly endowed global environment and that we transfer it to the next generation in sound condition. Striving to be an earth-friendly company, YKK Group proclaims that we will address and promote 'harmony with the environment' as the highest priority of our business activity."*

YKK AP constantly endeavors to better our performance in honoring that pledge. We're proud that our products greatly enhance the energy efficiency of buildings and improve comfort for their occupants.

All YKK AP products are created in facilities that are models of energy efficiency and environmental responsibility. YKK AP's U.S. manufacturing plant in Dublin, Georgia, is ISO 14001 certified and has a 73% recycling rate. The plant:

- recycles 100% of aluminum waste on-site
- has reduced the amount of other waste materials sent to the landfill by 40%
- uses regenerative burners to save 50% on the melting/casting operation's fuel consumption
- captures and burns 93% of all solvent emissions from the paint line
- uses state-of-the-art techniques for waste water treatment

## YKK AP is a Resource For You

All YKK AP sales representatives are required to obtain a Construction Documents Technologist Certificate, as administered by the Construction Specifications Institute (CSI). They are eager to assist you in meeting LEED prerequisites and performance benchmarks. These field professionals, supported by our LEED Accredited Professional, are well positioned to help you evaluate each product's potential contribution to LEED credits. For assistance or product information, please contact your local YKK AP sales representative.

