

# Zero Formaldehyde

ENF LEVEL  $\leq 0.025\text{mg/m}^3$ . Limit Value of Formaldehyde Release

With the improvement of living standards and environmental awareness in home furnishings, people have higher requirements for the environmental friendliness of plywood. (Grading of Formaldehyde Release from Plywood and Its Products).

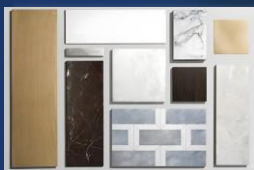
The new ENF grade concept has half of the formaldehyde value lower than the limit set by the currently strict & recognized CARB-NAF standard in the industry, which is referred to as the "Strictest Formaldehyde Standard." The introduction of the new national standard provides consumers with more authoritative and specific references when they select environmentally friendly home building materials.

ResCom® Express Fabrication has been committed to creating a healthy and beautiful life for consumers, with stricter standards than national standards, and constantly seeking breakthroughs in material selection, product design, and other aspects, to give consumers a healthy and satisfactory choice.



The Air Negative Oxygen Ion Induced Amount is  $1498/\text{s.cm}^3$ .

Release negative oxygen ions



ResCom® Silicon Crystal Inorganic Prefabricated Panels promote zero carbon compliance, which offsets the carbon dioxide or greenhouse gas emissions generated by themselves to reach relatively "Zero-Carbon Emission" so as to truly realize carbon neutrality compliance. The large amount of negative oxygen ions released into the air are beneficial to human health and can remove toxic substances from the air, purifying the air and fundamentally eliminate indoor air pollution to help create a healthy & comfortable, clean & fresh indoor air environment.

The concentration of negative oxygen ions in the air is closely related to human health. When the concentration of negative oxygen ions in the air is below  $300\text{ ions/s.cm}$ , it can affect the body's normal functioning and lead to insomnia which is caused by biological clock disorder and can directly induce various diseases. When the concentration of negative ions reaches  $1000\text{ ions/s.cm}^3$ , the body metabolism returns to a normal state; when the concentration of negative oxygen ions exceeds  $1500\text{ ions/s.cm}^3$  a person's physical and mental condition reaches their peak, resulting in excellent learning, and working efficiency.

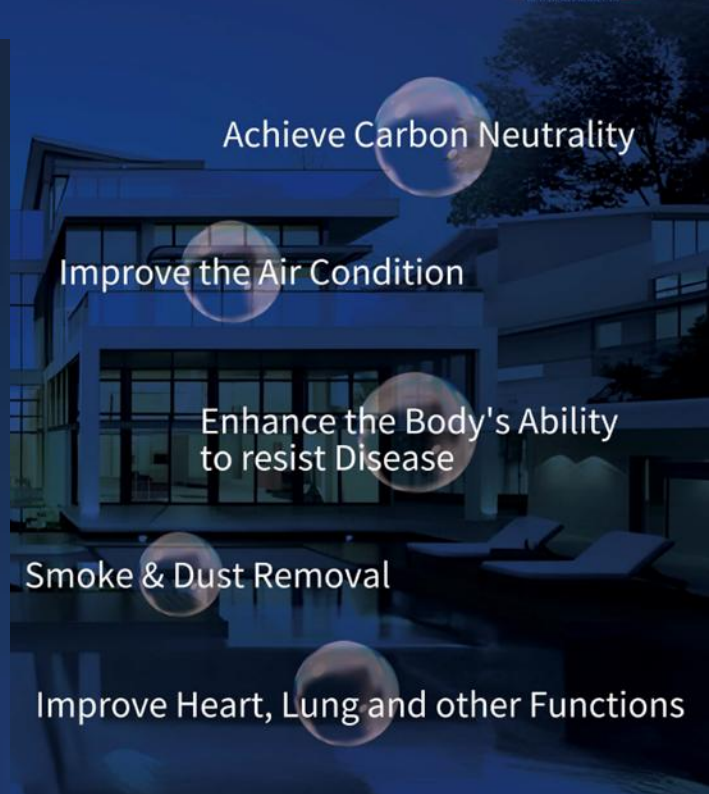
Achieve Carbon Neutrality

Improve the Air Condition

Enhance the Body's Ability to resist Disease

Smoke & Dust Removal

Improve Heart, Lung and other Functions



# Negative Oxygen Ions Biomass Utilization and CO<sub>2</sub> Reduction

## Comprehensive Analysis of ResCom® (CMC) Magnesia Cement Board in the Built Environment

**Abstract:** This report provides an in-depth analysis of ResCom<sup>®</sup> (CMC) Magnesia Cement Board, focusing on its unique ability to induce high concentrations of negative oxygen ions, its contribution to healthier indoor environments, and its environmental sustainability.

It compares ResCom<sup>®</sup> with traditional building materials such as Plasterboard/Drywall, Portland Fiber Cement, and Oriented Strand Board (OSB).

The report also incorporates research on biomass utilization, CO<sub>2</sub> gas reduction, and energy efficiency in the production of magnesium-based cements to underscore the advantages of ResCom<sup>®</sup> in promoting sustainable and healthier work environments.

**Introduction:** The construction industry is shifting towards materials that prioritize health and environmental sustainability. ResCom<sup>®</sup> (CMC) Magnesia Cement Board is a significant innovation, integrating the benefits of magnesium oxide (MgO) with advanced manufacturing techniques to deliver superior performance in indoor air quality, fire resistance, durability, and environmental impact.

**The Role of Negative Oxygen Ions in Indoor Environments:** Negative oxygen ions (NAIs) are naturally occurring molecules that have been associated with numerous health benefits, including improved mood, enhanced cognitive function, and better respiratory health.

Materials such as ResCom<sup>®</sup> Magnesia Cement Board have been shown to induce high concentrations of NAIs (approximately 1498 ions/cm<sup>3</sup>), creating healthier indoor environments.

**1.1 Mechanism of Action:** NAIs attach to airborne particles, reducing pollutants, allergens, and bacteria.

This process significantly improves indoor air quality, reducing the risk of respiratory diseases and enhancing overall well-being.

## Environmental Advantages of ResCom® Magnesia Cement Board

**Biomass Utilization and CO<sub>2</sub> Reduction:** Magnesium-based cements like ResCom<sup>®</sup> are often derived from magnesium-rich natural materials or biomass residues, significantly reducing the reliance on high-energy manufacturing processes associated with Portland cement.