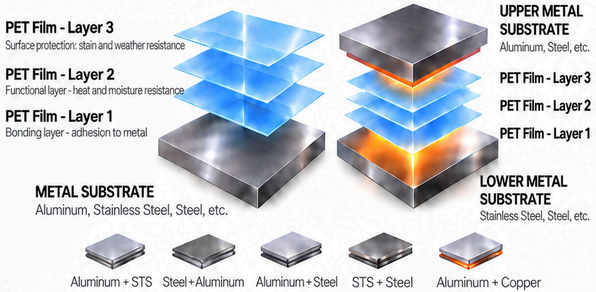
PACKAGING FOR THE NEXT STANDARD

A SINGLE METAL SOLUTION FOR SAFETY, SUSTAINABILITY, AND SCALABILITY

K·ECO STEEL'S **THERMAL LAMINATION TECHNOLOGY** CREATES DISSIMILAR-MATERIAL JOINING

By applying functional films and thermal lamination, K·ECO STEEL bonds dissimilar metals–including steel, stainless steel, and aluminum. Material combinations can be engineered to meet product requirements for weight, strength, thermal performance, surface properties, and more.



DISSIMILAR MATERIAL JOINING

Combines dissimilar metals into one engineered material

ADHESIVE-FREE / SOLVENT-FREE

No adhesives or solvents used

Functional material design combines the properties of different materials to meet product-specific requirements.

K·ECO STEEL

MORE FUNCTION LESS IMPACT
GREATER FUNCTION, LOWER ENVIRONMENTAL IMPACT

INNOVATION PREMIER 1000	U.S. PATENT	INNO-BIZ
GLOBAL SMALL GIANT	JAPAN PATENT	MAIN-BIZ
GREEN TECHNOLOGY CERT.	CHINA PATENT	ISO 14001
PRIME MINISTER'S COMMENDATION	INDIA PATENT	ISO 45001
MINISTERIAL COMMENDATION	KOREA PATENT	ISO 9001

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SAFE
SUSTAINABLE
SCALABLE

www.kumah.co.kr

A NEW STANDARD FOR **METAL** K·ECO STEEL PACKAGING

A NEW STANDARD FOR
FOOD-GRADE METAL PACKAGING



K·ECO STEEL

WHY K·ECO STEEL?

K·ECO STEEL PACKAGING

K·ECO STEEL is a functional laminated steel engineered for metal packaging through thermal bonding. More than an eco-friendly steel, it responds to increasingly stringent chemical and packaging regulations, combines the recyclability of metal with the functionailty of film, and supports the high-volume demands of consumer markets.

SAFER MATERIALS

Safety for food-contact applications

ECO-FRIENDLY MANUFACTURING

Eco-conscious materials and processes

SCALABLE PRODUCTION

Continuous production for high-volume consumer demand

RECYCLABLE METAL

An alternative to single-use plastic packaging

K·ECO STEEL DISTINCTIVE ADVANTAGES

SAFE
SUSTAINABLE
SCALABLE

www.kumah.co.kr

PACKAGING

SAFE MATERIAL

Material Safety for Food Packaging

K·ECO STEEL is developed to replace or reduce conventional painting, solvent- and adhesive-based processes by thermally laminating PET film onto metal surfaces. In food-packaging applications, it helps address concerns about BPA and other harmful substances and respond to global packaging-material regulations.

FOOD CONTACT SAFETY Material design for food-contact metal packaging applications

BPA-FREE Designed with growing food-packaging regulations on bisphenol A in mind

SOLVENT-FREE Film thermal lamination reduces solvent-based bonding and coating processes



BPA Free

PFAS **Free**

VOC **Free**

Adhesive **Free**

Solvent **Free**

ECO-FRIENDLY MATERIAL

Material Design for Sustainable Packaging

Combining metal substrates with functional PET film delivers both the performance required for food packaging and improved sustainability. Multilayer film design and metal recyclability support next-generation eco-friendly food-packaging materials.

3-LAYER PET FILM Multilayer PET film structure with functional layers

FUNCTIONAL SURFACE Barrier, durability and other food-packaging functions

METAL RECYCLABILITY Sustainable packaging design with metal recyclability in mind



CLEANER PROCESS

Thermal Lamination Reduces Painting, Solvent and Adhesive Processes

KUMAH STEEL's core strength is not only eco-friendly materials, but also a change in how they are manufactured. Proprietary thermal lamination continuously bonds functional film to metal using heat and pressure. It simplifies manufacturing by reducing conventional multistage pretreatment, painting, drying and bonding processes, as well as chemical use.

THERMAL LAMINATION Combines design aesthetics and functionality in a single film

SIMPLIFIED PROCESS Protects metal surfaces from external contamination and abrasion

NO EFFLUENT, NO CARBON Reduces dependence on solvent- and adhesive-based processes

RENEWABLE ENERGY IN MANUFACTURING Uses renewable energy in manufacturing



Environmental benefits and reduction figures are based on internal review criteria and may vary with actual process conditions.

MASS PRODUCTION

Mass Production Through Continuous Processing

KUMAH STEEL has a mass-production foundation that continuously applies functional films to coil-form metal through a roll-to-roll thermal lamination line.

