WHICH METAL TO USE?

A decision tree for procurement, engineers, and brand managers

START HERE
What is your primary requirement?

Q1: Is this food packaging?

YES →

NO →

FOOD PACKAGING

Need transparency?
→ AlOx or SiOx (transparent barrier)

Need antimicrobial?
→ Silver (Ag) for medical/specialty

Premium/luxury food?
→ Gold (Au) cosmetic / chocolate

NON-FOOD APPLICATIONS

Decorative / gift wrap?
→ Copper (Cu) rose-gold aesthetic

Industrial / electronic?
→ Chromium (Cr), Nickel (Ni)

Rust / corrosion packaging?
→ Zinc (Zn) sacrificial anode

DEFAULT CHOICE FOR ALL STANDARD APPLICATIONS:

ALUMINIUM (Al)

Used in dominant in flexible packaging worldwide. Optimal balance of cost, safety, barrier, recyclability.

■ SELECTION RULE
Default to aluminium unless your specific use case REQUIRES an alternative. Alternatives cost 4-40,000× more.