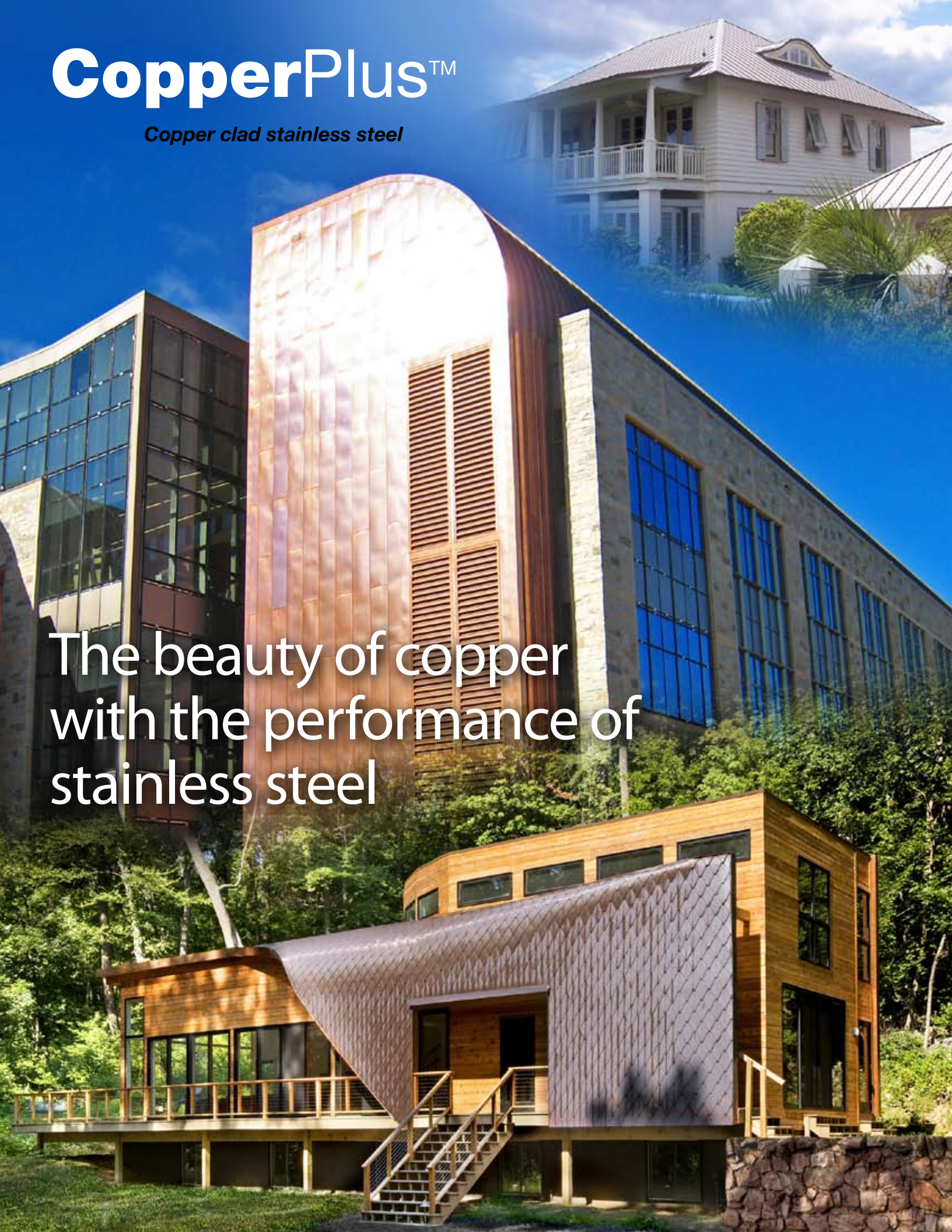


CopperPlus™

Copper clad stainless steel

The beauty of copper
with the performance of
stainless steel



More than copper for less than copper.

CopperPlus copper clad stainless steel (ASTM B506) looks just like solid copper, which means you can have the classic beauty of solid copper at a much lower price. You also get greater strength, increased durability, lower weight, reduced thermal expansion, improved solder joints and complete formability. In other words, much more for much less.

Weighs less. Costs less.

CopperPlus outperforms copper yet weighs significantly less. You save money because the outer layers of copper are bonded to a core of stainless steel. Less copper equals less cost.

Stronger.

The stainless steel core in CopperPlus provides a significant strength advantage over plain copper. Thus, you can use thinner gauges while at the same time achieving improved mechanical performance.

Lasts longer.

Copper is soft and susceptible to failure from erosion corrosion. But the stainless steel core of CopperPlus limits wear, which is why CopperPlus installed in the 1960s still performs as well as when it was installed.

Solders easier.

CopperPlus has lower thermal conductivity than ordinary copper, so you can use smaller, cooler irons and get easier solder flow, higher joint shear strength and faster installation.

Takes any form.

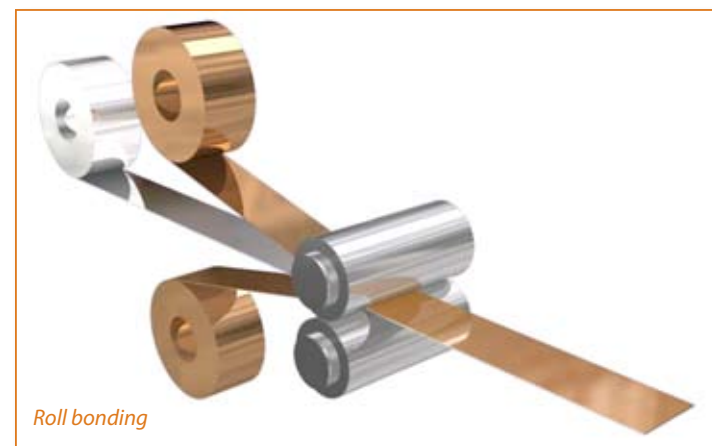
CopperPlus, even with the added strength of its stainless steel core, can be shaped, fashioned and formed just like copper, using the same tools. Gutters, downspouts, cornices and other intricate shapes are easily formed to bring beauty, quality and durability to any installation.

The architectural metal for the Regents Hall of Natural and Mathematical Sciences at St. Olaf College in Northfield, Minnesota, was originally specified to be solid copper. By changing the endwalls and louvered panels to CopperPlus, Architects Holabird and Root and sheet metal supplier M. G. McGrath, were able to save the school substantial cost.

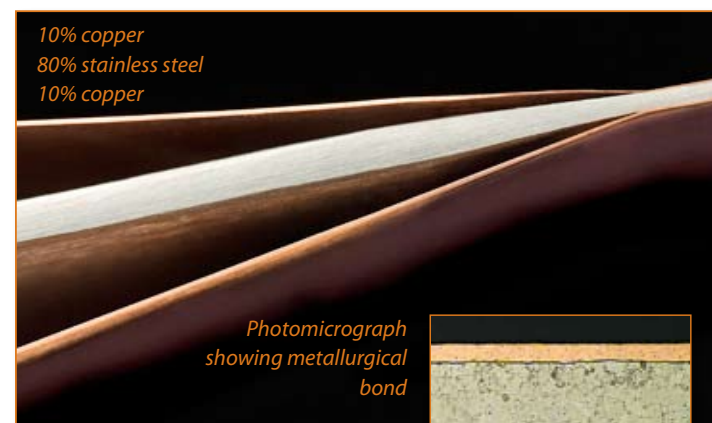


What it is, how it's used.

CopperPlus looks like copper, forms like copper, ages like copper, because it is copper. But it's also much more. It's copper *metallurgically bonded* to a core of stainless steel, creating a new clad material with the best characteristics of both.



Roll bonding



10% copper
80% stainless steel
10% copper

Photomicrograph showing metallurgical bond

Copper clad stainless steel is copper roll bonded to both sides of a core of type 430 stainless steel.



Roofing

CopperPlus has the strength of stainless steel, yet it's easy to fabricate standing seam, batten seam, Bermuda seam, mansard or virtually any other roofing style. Available in coil form, it can be easily cut to any length you want.



Flashing

CopperPlus cuts, forms and installs easily, and it's compatible with all types of mortar and mortar additives. Perfect for base, counter, cap, eave, valley, drip, fascia and step flashing.



Rain Drainage

The ability to accept severe forming makes CopperPlus perfect for gutters, downspouts and fabricated rain drainage components. The stainless steel core provides greater erosion resistance than copper, and therefore fewer failures.



Decorative Components

CopperPlus looks and ages just like copper, which makes it ideal for fabricating dormers, cupolas, finials, spires, scuppers and conductors.

Fascia/Wall Panels

As you'd expect, CopperPlus is compatible with all custom and standard designs.

Use it wherever copper is used.

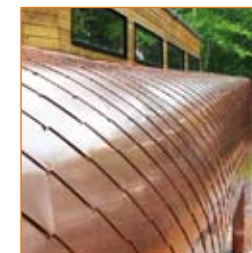
Installs the same.

CopperPlus is installed in accordance with recognized construction sheet metal practices. It's readily cut, formed, soldered, welded, riveted, nailed, and otherwise worked by all the conventional sheet metal methods. Plus, because of its inherent strength, there's less chance of damage to the material before, during, and after installation.



Easy to form.

Fully annealed CopperPlus forms like solid copper and other soft construction materials. It can be bent flat on itself (180° bend, 1/2 T radius) at all standard gauges.



Fastens easily.

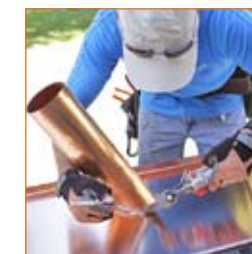
CopperPlus can be installed using any of the usual fasteners — nails, screws, bolts, rivets, clips, etc. — which are made of copper, stainless, brass or bronze.

Comes the way you want it.

CopperPlus is available in coils, rolls or cut-to-length sheets up to 24" wide.

Solders faster.

CopperPlus is quickly and easily soft-soldered using 50-50 or higher tin content solder and mild copper-soldering fluxes. Smaller, cooler irons can be used to speed up the soldering.



Cuts like steel.

CopperPlus is cut in the same way as steel, using sharpened and aligned conventional hand and power tools.





Harris Bank, Hinsdale, Illinois
 John A. Mayes, Donald
 H. Williams & Partners/
 Architects A.I.A. R. H. Roberts
 Construction Co., Builder
 Roof installed 1969

CopperPlus has been tested and proven in the most stringent way possible — almost forty years in the field, with no discernible difference between copper and CopperPlus. When we developed CopperPlus in the 1960s (when copper prices were soaring much as they are now) we knew it would age just like copper—because the outer layers are copper. Now, nearly four decades later, there's undeniable proof.

How it outperforms copper.

Mechanical and Physical Properties

Property	CopperPlus ASTM B506 O60: soft	Copper ASTM B370 H00: 1/8 hard	Copper ASTM B370 H01: 1/4 hard
Yield Strength [ksi]	40	28	30
Ultimate Tensile Strength [ksi]	60	36	38
Elongation in 2 inches [%]	32	30	25
Density [lbs/in ³]	.287	.323	
Modulus of Elasticity [10 ⁶ psi]	27	17	
Coefficient of Thermal Expansion [μin/in·°F]	6.1	9.6	
Thermal Conductivity [BTU/ft·hr·°F]	37	226	

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