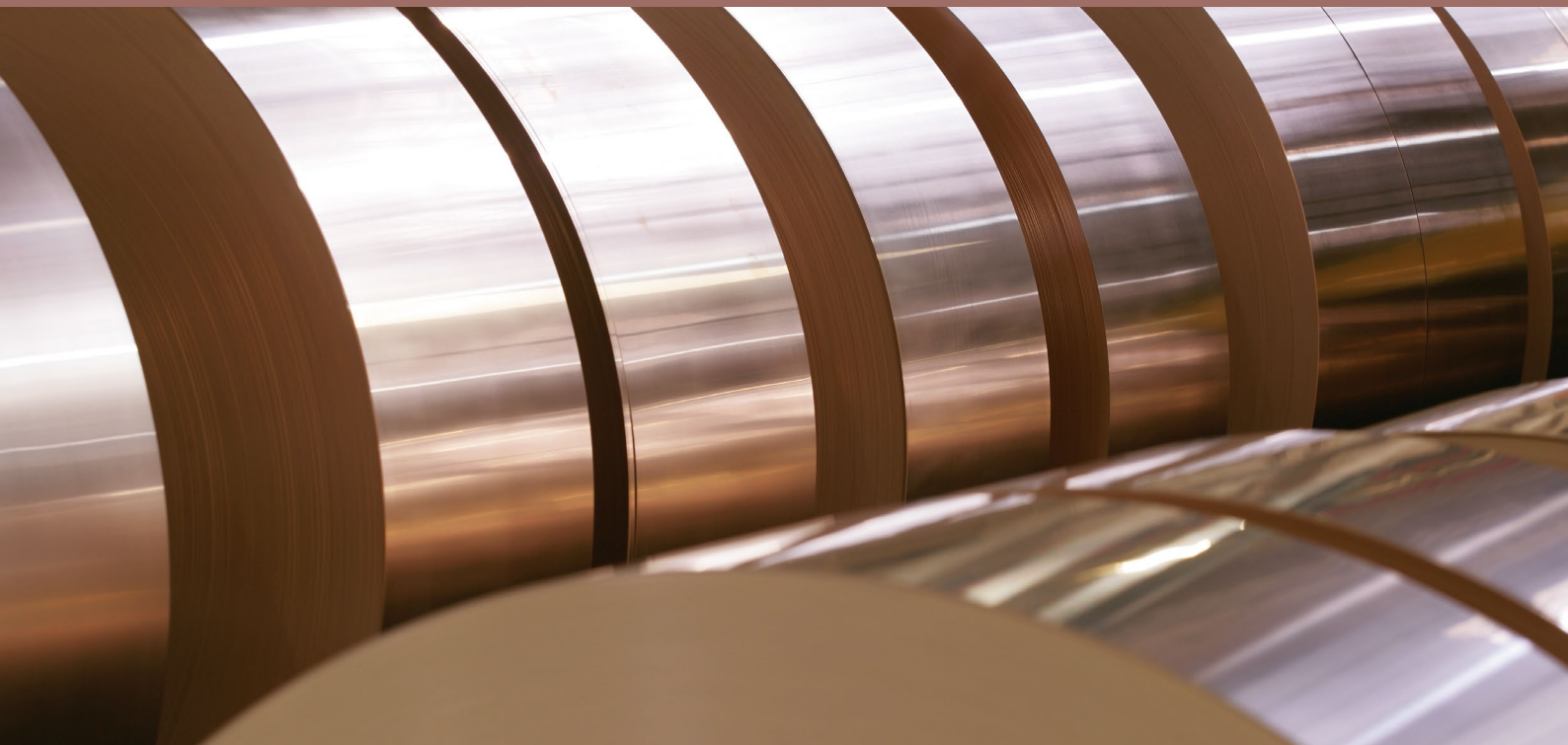
KME

ENGINEERING
COPPER
SOLUTIONS

ROOFING

SHEETS AND STRIPS
FROM COPPER AND
COPPER ALLOYS

KME COPPER DIVISION
[EN]



SECOND TO NONE.

KME'S COPPER DIVISION PRODUCT PORTFOLIO.

KME is one of the world's leading manufacturers of copper and copper alloy preliminary products and semi-finished products. The Copper Division of KME is the only manufacturer worldwide to offer sheets, strip, wire, bars and pipes from one source. Apart from a unique product variety in our major product groups, our three main sites specialise in individual solutions for the industrial, construction and plant engineering sectors.

We excel around the globe as a partner in growth markets such as electro mobility, energy, electronics and infrastructure thanks to the latest technologies and viable service concepts.

ALWAYS WELL COVERED!

Copper strips and sheets for roofing are made of CU-DHP, i.e. oxygen-free, phosphorus-deoxidised copper with limited residual phosphorus content. Cu-DHP has very good weldability and solderability; it can be excellently formed regardless of temperature and rolling direction and is corrosion resistant and requires little maintenance. It is subject to EU standard 1172, the standard for sheet and strip for the construction industry in Europe.

Copper is a traditional and versatile material that has long been used for roof drainage and roofing of historical and contemporary buildings. Its characteristic surface makes the material an extremely lively, profile-forming design element for architects and building owners, which harmonises perfectly with natural building materials. Copper is entirely recyclable, and its durability makes it a symbol for sustainable buildings.

OUTLASTING AND OUTLIVING ALL OF US – OUR COPPER IN ROOFING.

THE COPPER SURFACE

Copper sheets and strips initially have the optical quality of the bare copper surface. After installation on site, a matt dark brown colour develops under the influence of atmospheric weathering through oxidation.

On inclined surfaces, the oxide layers continue to change colour due to the intensive action of air constituents and moisture, forming basic copper compounds. Over the course of time, the green patina typical of copper develops, which gives buildings their unmistakable accent and, in addition, its protective properties ensure the extraordinary durability of the material 1172. We can also produce custom orders based on your own standards.

For special requirements in contemporary architecture, we now produce TECU® Classic quality strips and sheets in accordance with DIN EN 1172 and KME's own strict guidelines on state-of-the-art facilities. The roofing quality of TECU® Classic exceeds the requirements of DIN EN 1172 in terms of tolerances and essential technological values, thus enabling the processed surfaces to look outstanding.

BY OPTING FOR KME'S STRIPS AND SHEETS FOR ROOFING YOU ARE CHOOSING:

- technically grease-free or lightly oiled, clean, plain-rolled surfaces
- a product manufactured and tested using tolerances based on EN 1172
- a material that is corrosion-resistant, even in sea air
- comprehensive support and advice during the selection process
- decades of experience involving standard and specialised requirements
- a durable, vibrant, versatile and maintenance-free material
- a material that is light and flexible to process
- a recyclable, ecologically and economically competitive material
- a huge variety of product widths and thicknesses
- integrated production – from preliminary to finished strip – all from a single source
- more than a century of experience across the entire spectrum of copper production and processing
- a highly qualified workforce
- comprehensive advice and support for:
  - product development
  - surface qualities
  - new material qualities and alloys
  - optimising the use of materials
  - new applications
  - improving business and technological processes
- product- and order-specific packaging

FACTS AND FIGURES

DIMENSIONS AND ALLOYS

STANDARD MATERIAL CU-DHP, R240	**SIZE** EN 1172
Panels	0,55 x 1000 x 2000 mm
	0,6 x 1000 x 2000 mm
	0,6 x 1000 x 3000 mm
	0,7 x 1000 x 2000 mm
	0,7 x 1000 x 3000 mm
Strip, 1-ton coils	0,6 x 600 mm
	0,7 x 600 mm
	0,55 x 670 mm
	0,6 x 670 mm
	0,7 x 670 mm
	0,55 x 1000 mm
	0,6 x 1000 mm
	0,7 x 1000 mm

STANDARD MATERIAL CU-DHP, R240	**SIZE** EN 1172
Strip, 25 m coils	0,7 x 1000 mm
Strip, 30 m coils	0,6 x 250 mm
	0,6 x 333 mm
	0,6 x 500 mm
	0,7 x 500 mm
	0,6 x 600 mm
	0,7 x 600 mm
	0,55 x 670 mm
	0,6 x 670 mm
	0,7 x 670 mm
	0,6 x 800 mm
	0,7 x 800 mm
	0,55 x 1000 mm
	0,66 x 1000 mm
500 kg coils	0,55 x 670 mm
	0,55 x 1000 mm

COMPOSITION STANDARD ALLOY

MATERIAL DESIGNATION		**COMPOSITION** in % (proportion of mass)					**DENSITY**
Symbol	No.	Element	Cu	P	Zn	Total other	g/cm³) approx.
Cu-DHP [1)]	CW024A	min.	99,90 [2)]	0,015	–	–	8,9
Cu-DHP [1)]	CW024A	max.	–	0,040	–	–	8,9

1) Highly suitable for welding, hard soldering and soft soldering. 2) Including Ag, up to max. 0.015%.
3) Only for gutters, downpipes and accessories. Zinc can escape as vapour if welded, hard-soldered or heat-treated.

DIMENSIONS, GUTTERING STRIP

MATERIAL	**DIMENSIONS**		**SPEC. COIL WEIGHT**	**MINIMUM ORDER**
	Thickness in mm	**Width** in mm	in kg/mm BB t	in t
Standard-compliant copper Cu-DHP	2 – 5,9	20 – 40	5 – 6; 10 – 11	2

MECHANICAL PROPERTIES

MATERIAL DESIGNATION			TENSILE STRENGTH R_m - N/mm²		0.2% YIELD POINT $R_{p0,2}$ - N/mm²		ULTIMATE ELONGATION A50 mm - %	HARDNESS HV	
Material		Condition	min.	max.	min.	max.	min.	min.	max.
Symbol	No.								
Cu-DHP	CW024A CW119C	R220	220	260	–	140	33	–	–
Cu-DHP	CW024A CW119C	H040	–	–	–	–	–	40	65
Cu-DHP	CW024A CW119C	R240	240	300	140	–	8	–	–
Cu-DHP	CW024A CW119C	H065	–	–	–	–	–	65	95
Cu-DHP	CW024A CW119C	R290	290	–	250	–	–	–	–
Cu-DHP	CW024A CW119C	H090	–	–	–	–	–	90	–

Note: 1 N/mm² is equivalent to 1 MPa.

DIMENSIONS, LIMIT DIMENSIONS AND LENGTH-RELATED DIMENSIONS

NOMINAL DIMENSIONS in mm				LIMIT DIMENSIONS in mm			LENGTH-RELATED MASS[1] at 100 mm width kg/m approx.
Thickness[3]	Width	Preferred length of sheet	Inside ring diameter of strip	Thickness	Width	Length of sheet	min.
0,5	up to 1250	2000 max. 4000	300, 400, 500	±0,02	+2 0	+10 0	0,445
0,6	up to 1250	2000 max. 4000	300, 400, 500	±0,02	+2 0	+10 0	0,534
0,7	up to 1250	2000 max. 4000	300, 400, 500	±0,02	+2 0	+10 0	0,623
0,8	up to 1250	2000 max. 4000	300, 400, 500	±0,02	+2 0	+10 0	0,712
1[2]	up to 1250	2000 max. 4000	300, 400, 500	±0,02	+2 0	+10 0	0,890

1) Calculated with a density of 8.9 g/cm³; 2) Larger than 1 mm available on request, including CuZn 15.
3) Standard. Other dimensions and alloys on request

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Find out more

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ROOFING

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