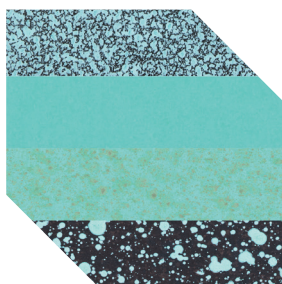


Specification Nordic Blue

Phosphorous deoxidised copper (DHP-Copper)
with copper oxide layer and artificial patina.



Nordic Blue, all finishes

CW024A

Typical use

Architecture, eg. roofing, facades,
window and door frames, decoration.

Dimension:

Width	max. 1000 mm
Thickness range	0,5...1,5 mm
Coils	max. 4000 kg
Sheet length	max. 6000 mm

Physical properties:

Density	8,94 kg/dm ³
Thermal expansion	17*10 ⁻⁶ 1/K (ΔT 100°C = 1,7mm/m)
Specific heat	385 J/kg K
Thermal conductivity	335 %W/Cm
Patina thickness	5-50 μm

Chemical Composition %:

Copper (Cu)	99.90 (min.)
Phosphorus (P)	0,015-0,040

The oxide layer consists of Cu₂O and CuO-oxides.
The oxide is covered by brochantite based patina,
Cu₄(SO₄)OH₆, with bluish colour.

Fabrication properties:

Formability	Excellent
Soldering	Excellent
Brazing	Excellent
TIG	Good
MIG	Good
EBW	Poor

Oxide layer and patina must be removed from
welding, soldering and brazing areas.

Mechanical properties:

The material fulfils the requirements of standard EN 1172:2011 (E).

Designation			Tensile strength R_m		0,2 % proof strength $R_{p0,2}$		Elongation A_{50mm}	Hardness HV	
Material symbol	Material number	Material condition	N/mm ² min.	N/mm ² max.	N/mm ² min.	N/mm ² max.	% min.	min.	max.
Cu-DHP CuZn0,5	CW024A CW119C	R220	220	260	-	140	33	-	-
		H040	-	-	-	-	-	40	65
		R240	240	300	140	-	8	-	-
		H065	-	-	-	-	-	65	95
		R290	290	-	250	-	-	-	-
		H090	-	-	-	-	-	90	-
CuSn0,15	CW117C	R250	250	320	200	-	9	-	-
		H060	-	-	-	-	-	60	90
		R300	300	370	250	-	4	-	-
		H085	-	-	-	-	-	85	110
CuAl5Zn5Sn1	CW309G	R400	400	-	170	-	45	-	-
		H080	-	-	-	-	-	80	-
CuSn4	CW450K	R290	290	390	-	190	40	-	-
		H070	-	-	-	-	-	70	100
CuZn15	CW502L	R310	310	370	200	290	10	-	-
		H090	-	-	-	-	-	90	115