

Tubes for cooling installation max.120bar (e.g. for refrigeration-fluid CO₂)



KME - brand name:

KME TECTUBE®_cips hp 120

Material name:

Name conforming to standards: **CuFe2P** according to EN 12449

KME description: **KME CL 12** = CuFe2P according to EN 12449

Identification:

Ink marking:

KME CuFe2P 22,23 x 1,50 18. FEB 2014 R300 max 120 bar

Embossing signature (example date) :

KME TECTUBE_cips HP 120 bar 22,23 7/8" CuFe2P 18. FEB 2014 EN 12735-1 Deutschland

Properties:

Size tolerance: acc. to EN 12735-1

Material: CuFe2P (KME CL12) acc. to EN 12449

Material temper: R 300 (soft annealed) acc. to EN 12449 / Tubes covering VDTÜV 567

R 420 (hard) acc. to EN 12449 for OD 9,52mm + OD12,7 mm starting Feb. 2014

Working pressure: max 120 bar

Tube Dimensions		KME Article-No.	Nominal weight kg / meter	Small Bundle no. of tubes each of 5m	Big Bundle Small Bundles per big bundle	Temper	
Tube Size mm	inch					hard R420	soft R300
9,52 x 0,65	3/8"	7129030	0,16	22	20	yes ¹	yes ²
12,70 x 0,85	1/2"	7129031	0,28	12	20	yes ¹	yes ²
15,87 x 1,05	5/8"	7129032	0,44	9	20	no	yes
19,05 x 1,30	3/4"	7129033	0,65	9	12	no	yes
22,23 x 1,50	7/8"	7129034	0,87	5	16	no	yes
28,57 x 1,90	1 1/8"	7131571	1,42	5	9	no	yes
34,92 x 2,30	1 3/8"	7129028	2,1	3	12	no	yes
41,27 x 2,70	1 5/8"	7129029	2,91	2	12	no	yes
53,97 x 3,55	2 1/8"	7133853	5,01	2	5	no	yes

¹ = starting Feb. 2015 ² = running out

Tube length: Each size 5m straight length
 Packing: All bundles are wrapped in PE-foil
 Tube ends: Closed with caps at both ends
 Identification: sticking label at bundle-end

For other Industrial applications we are also able to produce different sizes and delivery form, as well as for different working pressure. Please contact us for your enquiry.

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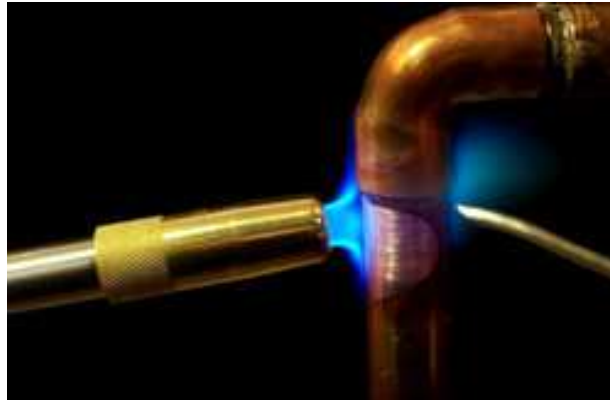


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Assembling characteristic of CL12

Hard-soldering	very good
Soft-soldering	very good
Gas-shielded welding	very good
Electro welding	good
Laser welding	good



Choice of recommended solder

Solder acc. to DIN EN ISO 17672	Working temp. °C	Composite in weightpercentage				
		Ag	Cu	Zn	Sn	P
CuP 279	740	2	91,7	---	---	6,3
CuP 281	710	5	89	---	---	6
CuP 284	700	15	80	---	---	5
Ag 244	730	44	30	26	---	---
Ag 134	710	34	36	27,5	2,5	---
Ag 145	670	45	27	25,5	2,5	---

Recommended flux:

Flux acc. to DIN EN 1045	Effective temp. range °C	Remark
FH 10	550 - 970	The welding flux is a corrosiv medium and it has to be removed after the welding

For hard to reach brazing joints, such as can occur in complex parts or installations, the use of silver brazing alloys, like Ag 134 or Ag 145, is recommended instead of copperphosphorous alloys. These silver brazing alloys ensure higher degree of gap filling and formation of better fillets.

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Recommendation for bending operations

The dimensions mentioned here can be cold bent with suitable bending equipment and bending segments that are precisely tailored to the outside diameter. The bending tools must be confirmed for use with coppertubes.

Hot bending is not recommended.

Industrial bending machines also enable tighter bending radii.

Bending of hairpins is possible on suitable bending equipment.

Tube OD		Tube Wall	Minimum bending radius	
inch	mm	mm	mm	Temper
3/8"	9,52	0,65	43	hard + soft
1/2"	12,7	0,85	52	hard + soft
5/8"	15,87	1,05	63	soft
3/4"	19,05	1,3	75	soft
7/8"	22,23	1,5	98	soft
1 1/8"	28,57	1,9	115	soft
1 3/8"	34,92	2,3	not specified	soft
1 5/8"	41,27	2,7	not specified	soft
2 1/8"	53,97	3,55	not specified	soft

not specified -> can be bended if suiting equipment is available.

Bending radii must be checked by installer
and are depending on equipment situation.

Ordering information

quantity / material / temper / tube-size / **VDTÜV - if requested**