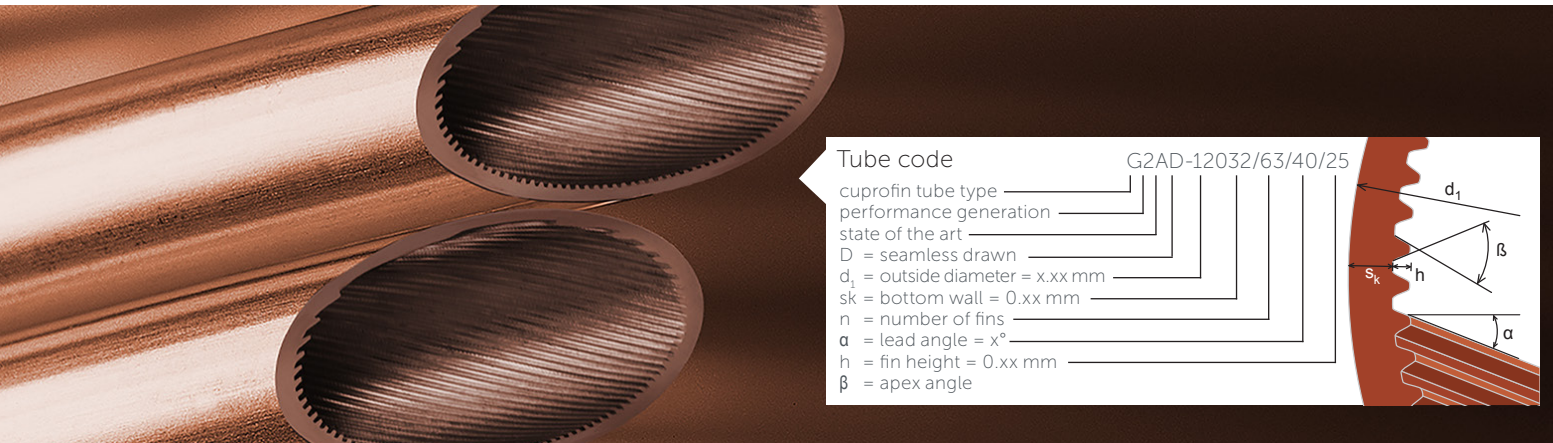


cuprofin[®]-G

Inner-grooved seamless drawn copper tubes



Application

Wieland cuprofin-G tubes are highly efficient heat transfer tubes, which are specifically designed for recooling of liquids such as water-glycol mixtures. The

grooves on the inside of the tubes are optimised for single-phase heat transfer, allowing the development of more compact heat exchangers.

Form of delivery

Level-wound coils

| | | | |
|----------|---------------|--------------------|--------------|
| Material | Copper Cu-DHP | Copper C12200 | Copper SF-Cu |
| Standard | EN 12735-2* | ASTM SB 359 | VdTÜV 420/6* |
| Temper | annealed Y040 | light annealed O50 | annealed F22 |

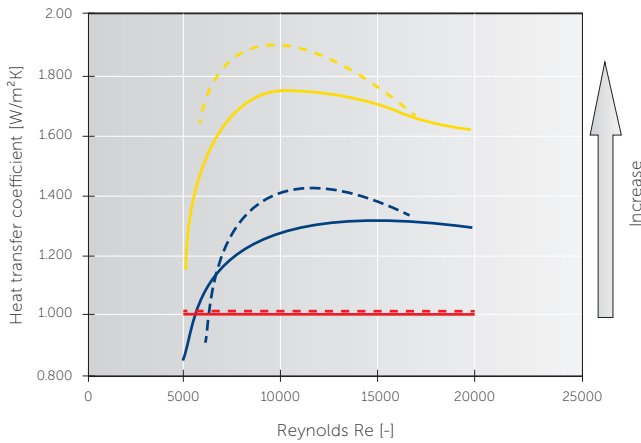
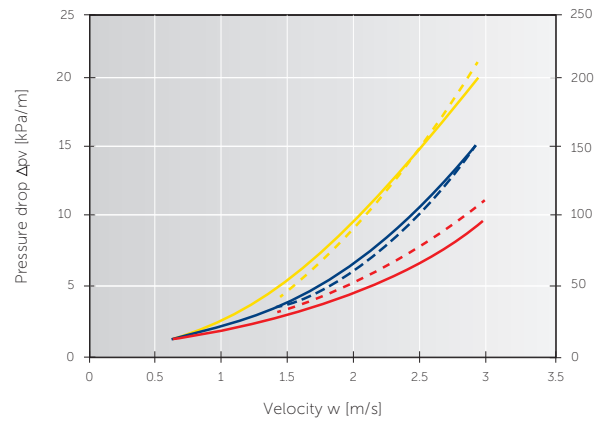
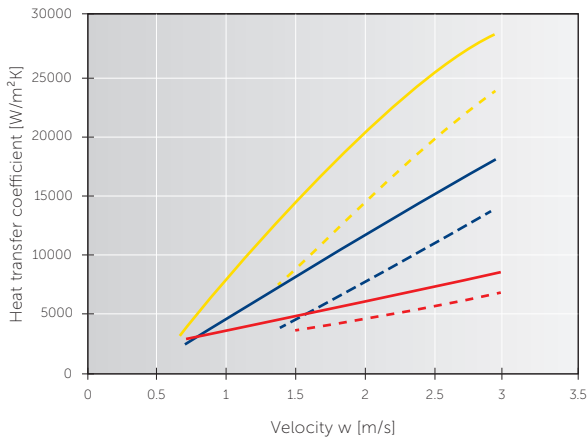
Straight lengths

| | | | |
|----------|---------------|----------------|--------------|
| Material | Copper Cu-DHP | Copper C 12200 | Copper SF-Cu |
| Standard | EN 12735-1* | ASTM SB 359 | VdTÜV 420/7* |
| Temper | hard R 290 | hard drawn H80 | hard F 36 |

*Conforms to the Pressure Equipment Directive PED 2014/68/EU.

| d ₁ | | s _k | h | n | α | Weight approx. | Tube code |
|----------------|------|----------------|------|----|----|----------------|---------------------|
| mm | inch | mm | mm | – | ° | [g/m] | |
| 12.00 | – | 0.32 | 0.25 | 63 | 40 | 127 | G2AD-12032/63/40/25 |
| 12.70 | 1/2 | 0.36 | 0.25 | 63 | 40 | 147 | G2AD-12736/63/40/25 |
| 12.70 | 1/2 | 0.40 | 0.25 | 63 | 40 | 161 | G2AD-12740/63/40/25 |
| 15.87 | 5/8 | 0.40 | 0.30 | 68 | 40 | 206 | G2AD-15840/68/40/30 |

Other types and wall thicknesses are available upon request.



Test conditions

Tube dimensions [mm]:

cuprofin-G 12.7 x 0.36

cuprofin S2AD 12.7 x 0.36

plain tube 12.7 x 0.36

Anti freeze agent:

Antifrogen L30 % (1.2-propylene glycol)

Formula

α ; cuprofin®

Efficiency = $\frac{\alpha; \text{cuprofin}^\circ}{\alpha; \text{plain tube}}$

$\frac{\Delta p_v, \text{cuprofin}^\circ}{\Delta p_v, \text{plain tube}}$

Efficiency means the increase of the heat transfer coefficient α , of the cuprofin-tube referring to the increase of pressure drop Δp_v . For each case the reference is the plain tube (efficiency = 1).

- cuprofin-G
 - cuprofin S2AD
 - plain tube
- } Pr=14.7
- - - cuprofin-G
 - - - cuprofin S2AD
 - - - plain tube
- } Pr=24

| Tube Type | Standard | E | EDX | C | This leaflet G | L10 |
|---------------------|-----------------------------|-------------|-------------------------------|--------------|-------------------------------|-----------------------------|
| Tube Application | evaporation condensation | evaporation | evaporation | condensation | single phase heat transfer | evaporation condensation |
| Process Application | fin coils shell & tube | fin coils | shell and tube evaporation | fin coils | highly viscous liquids | seawater |
| Material | copper | copper | copper | copper | copper | cupro nickel |