

C1453

TECHNICAL DATA SHEET - EDITION 2022

INTERNATIONAL STANDARDS

EN -	DIN Cu Sn0.02 Te0.02	ASTM/UNS C1453	JIS -
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CHARACTERISTICS

C1453 has a high stress relaxation resistance and is therefore mainly used in heat exchanger applications, especially for radiators.

MATERIAL TEMPER

Soft R220	R280	R330	R390
TS 220 - 275 HV 53 - 65	TS 280 - 360 HV 95 - 120	TS 330 - 410 HV 105 - 130	TS 390 - 475 HV 125 - 150

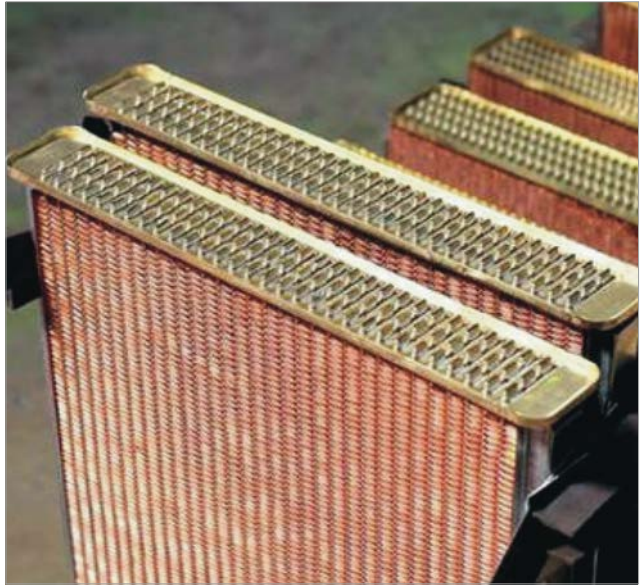
DIMENSIONS

Thickness range	0.04 to 0.30 mm
Width range	10 to 500 mm
Inner and outer diameters	Acc. to customer requirements

CHEMICAL COMPOSITION C1453

TYPICAL APPLICATIONS

C1453 is mainly used for radiators, heat exchangers and connectors for electrical and electronic applications



CHEMICAL COMPOSITION

Cu Min. 99.90%	Sn 0.003 - 0.023%	Te or Se 0.003 - 0.023%	P 0.001 - 0.010%
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PHYSICAL PROPERTIES

Melting point 1080 degrees C	Density 8,900 kg/m ³	Specific heat capacity cp 0.385 kJ/kgK	Young's modulus 117 GPa
Thermal conductivity 368 W/mK		Coefficient of thermal expansion α 17.6 10 ⁻⁶ /K	

CORROSION RESISTANCE

Copper is resistant to natural and industrial atmospheres as well as maritime air, drinking and service water, non-oxidizing acids, alkaline solutions and neutral salt solutions.
Copper is not resistant to ammonia, halogenide, cyanide and hydrogen sulfide solutions and atmospheres, oxidizing acids and sea water (especially at high flow rates).

FABRICATION PROPERTIES

Cold formability	Excellent
Soldering	Excellent
Brazing	Excellent
Gas shielded arc welding	Excellent

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