

## Products Information

### Features

- High electrical conductivity(82%IACS)
- High reliability with superior stress relaxation resistance for electric conductive parts
- Excellent blanking workability and high strength to form precise geometry

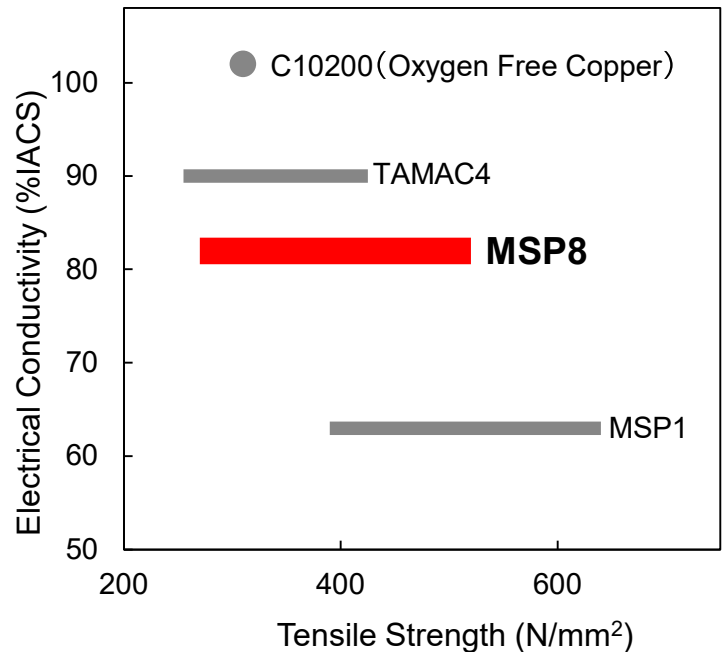
### Chemical composition

(mass%)

Mg	P	Cu
0.25	0.002	Rem.*

\* Including inevitable impurities and trace additive elements

### Positioning of Alloy



### Physical properties

Property	Representative Value
Specific Gravity ( 293 K )	8.9
Coefficient of Thermal Expansion ( / K : 293~573 K )	$17.8 \times 10^{-6}$
Thermal Conductivity ( W / ( m · K ) : 293 K )	340
Electrical Conductivity ( %IACS : 293 K )	82
Modulus of Elasticity ( kN / mm <sup>2</sup> : 293 K )	131
Poisson's ratio ( 293 K )	0.28

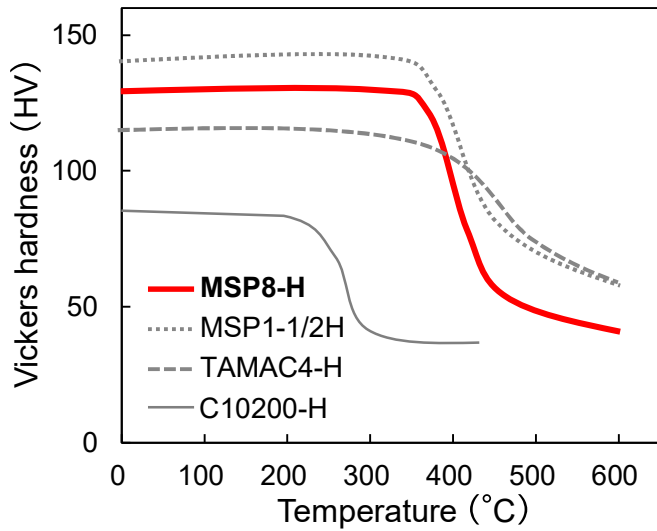
### Mechanical properties

	Temper				Typical Values			
	1/4H	1/2H	H	EH	1/4H t:3.0mm	1/2H t:0.4mm	H t:0.8mm	EH t:0.64mm
Tensile Strength (N/mm <sup>2</sup> )	270~370	320~420	360~460	420~520	325	367	415	459
0.2% Yield Strength (N/mm <sup>2</sup> )	—	—	—	—	282	331	399	434
Elongation (%)	10 Min.	6 Min.	3 Min.	2 Min.	17	16	9	9
Vickers Hardness* (HV)	(70~130)	(85~145)	(100~160)	(110~170)	102	113	130	141

\* Reference values

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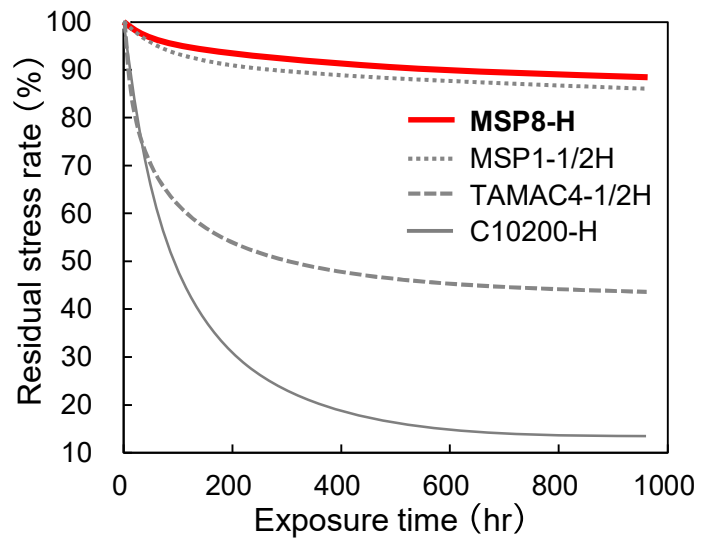
### ➤ Heat resistance



Exposure time: 1hr

<JCBA T325>

### ➤ Stress relaxation resistance



Exposure temperature: 150°C

Sampling direction: L.D.

Bending stress: 80% of 0.2% yield strength

<JCBA T309>

### ➤ Bendability

90° W-Bend, Specimen width=10mm, Load=9.8kN <JCBA T307>

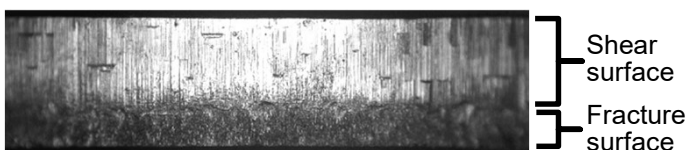
Temper	Sampling direction (to the L.D.)	Bending radius (mm) R										R/t
		0.0	0.1	0.2	0.25	0.4	0.6	1.0	1.6	2.0	3.0	
1/2H t:0.4mm	0°: Good Way	▲	△	△	△	○	◎	◎	◎	◎	◎	0.3
	90°: Bad Way	△	△	△	○	◎	◎	◎	◎	◎	◎	0.0
H t:0.64mm	0°: Good Way	▲	▲	▲	△	△	△	○	◎	◎	◎	0.4
	90°: Bad Way	×	×	▲	▲	△	△	△	○	◎	◎	0.6
EH t:0.64mm	0°: Good Way	▲	▲	▲	▲	△	△	△	○	○	◎	0.6
	90°: Bad Way	×	×	×	▲	▲	△	△	△	○	◎	0.9

Criteria of evaluation: ◎Good(Acceptable), ○ Minor rough surface(Acceptable), △Rough surface(Acceptable),  
▲Minor crack(Unacceptable), ×Major crack(Unacceptable)

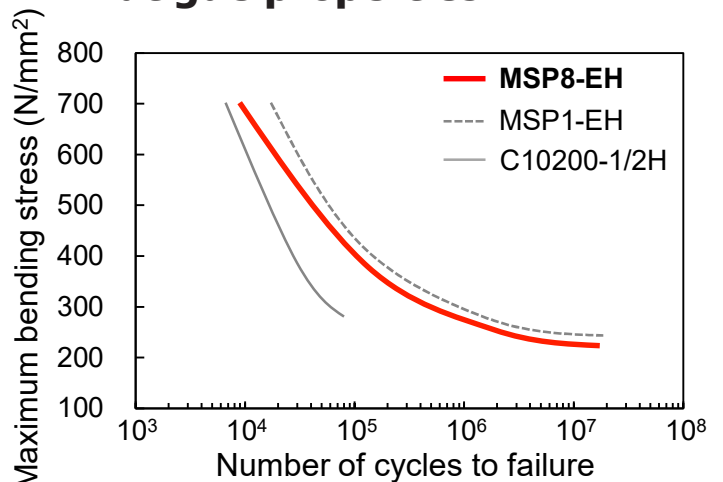
### ➤ Blanking workability

- The end face after blanking is sharp and uniform without coarse inclusions
- Boundary of shear surface and Fracture surface is linear without secondary shear surface

End face after blanking (clearance / thickness = 3%)



### ➤ Fatigue properties



Sampling direction: L.D. <JCBA T308>