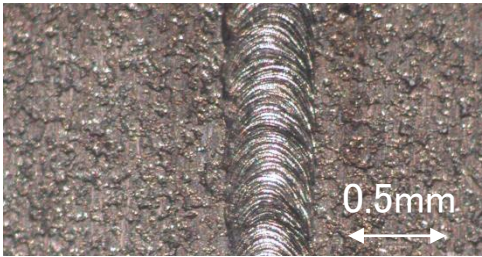
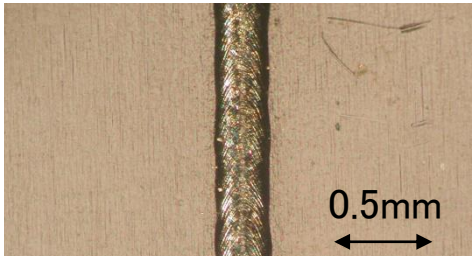
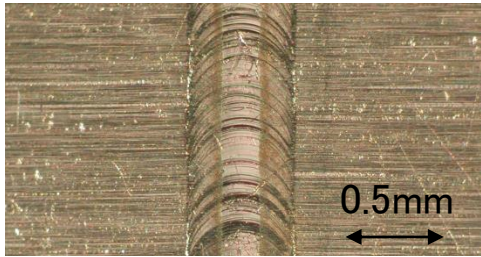

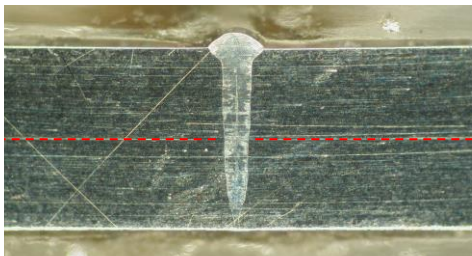
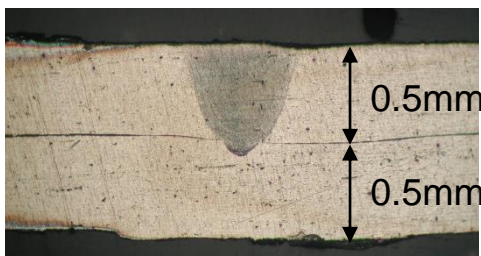


金属材料の溶接

溶接形状: 重ね溶接 (厚さ0.5mm+0.5mm)

レーザパワー: 190W

スポットサイズ: $\phi 30 \mu\text{m}$

	SPCC	SUS304	純アルミニウム
溶接速度	50mm/s	50mm/s	10mm/s
溶接ビード表面	 A close-up photograph of the surface of a laser weld on SPCC steel. The weld bead is dark and shows a distinct, regular ripples pattern. A white double-headed arrow at the bottom right indicates a width of 0.5mm.	 A close-up photograph of the surface of a laser weld on SUS304 stainless steel. The weld bead is bright and shows a regular ripples pattern. A black double-headed arrow at the bottom right indicates a width of 0.5mm.	 A close-up photograph of the surface of a laser weld on pure aluminum. The weld bead is bright and shows a regular ripples pattern. A black double-headed arrow at the bottom right indicates a width of 0.5mm.
溶接部断面	 A cross-sectional photograph of a laser weld on SPCC steel. The weld is a lap joint. The weld metal is dark and has a somewhat irregular, porous appearance. A red dashed line is visible at the bottom of the image.	 A cross-sectional photograph of a laser weld on SUS304 stainless steel. The weld is a lap joint. The weld metal is bright and has a smooth, conical shape. A red dashed line is visible at the bottom of the image.	 A cross-sectional photograph of a laser weld on pure aluminum. The weld is a lap joint. The weld metal is bright and has a smooth, conical shape. Two vertical double-headed arrows on the right indicate a height of 0.5mm for the upper part and 0.5mm for the lower part of the weld.

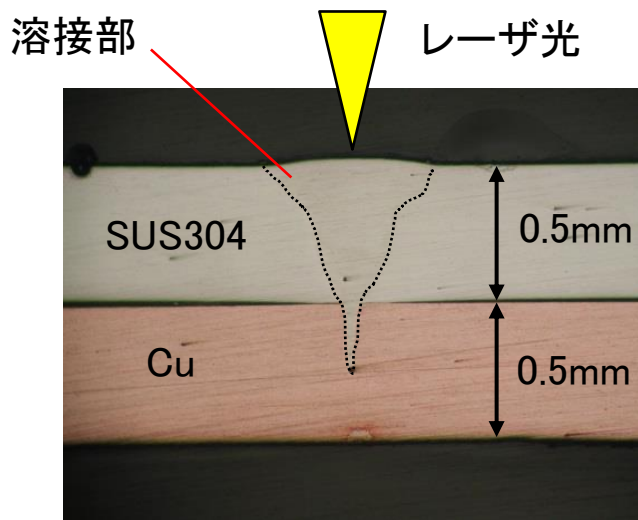


ORIST

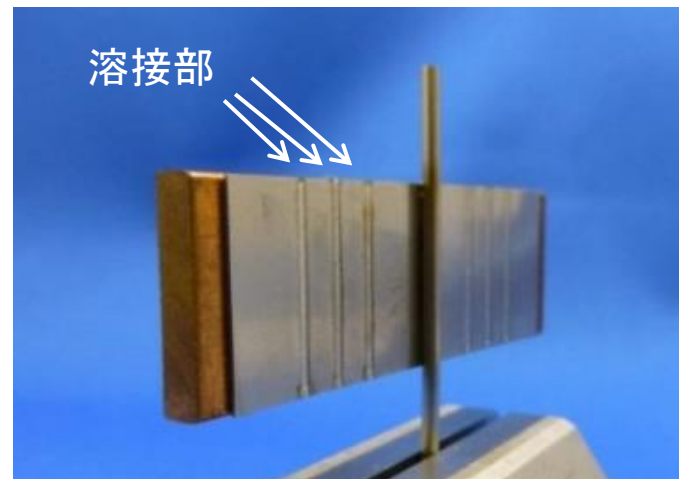
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ステンレス鋼と純銅の溶接

継手形状: 重ね溶接 (厚さ0.5mm+0.5mm)
材質: SUS304と純銅



溶接部断面写真



レーザー溶接例

レーザーパワー: 190W, 溶接速度10mm/s
スポットサイズ: $\phi 30 \mu\text{m}$

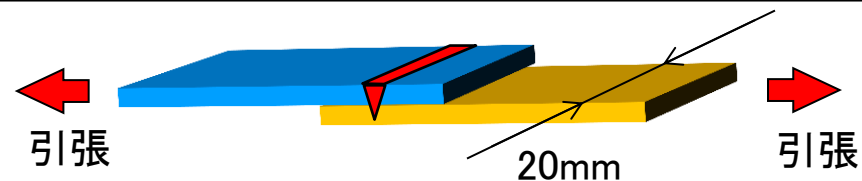


ORIST

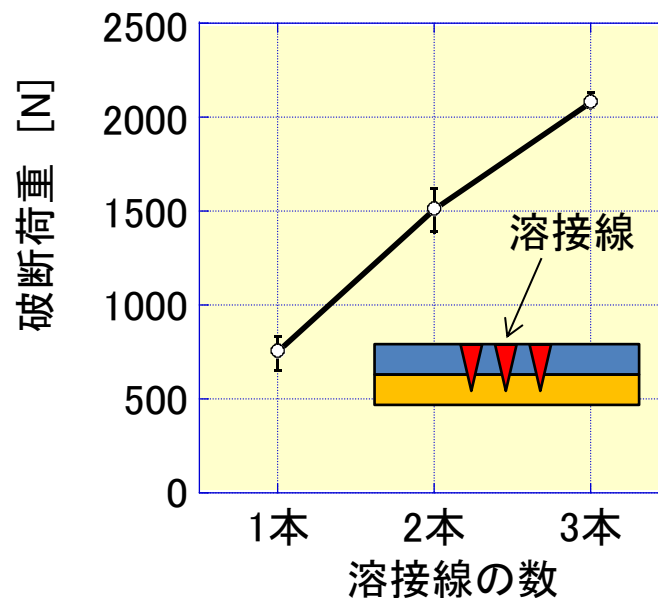
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ステンレス鋼と銅の溶接事例

- 適用事例: 銅板とSUS棒の接合
- 従来の接合法: はんだ付け
- ・・・作業性, 品質安定性に課題



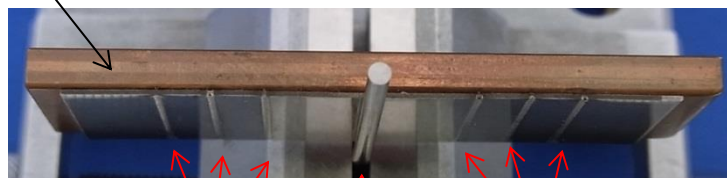
引張せん断試験の模式図



引張せん断試験結果

溶接本数に比例して強度は向上
必要な強度分だけ溶接本数を増やす

銅板

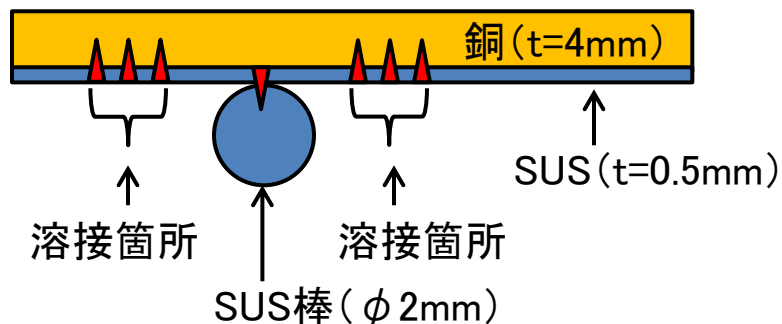


溶接箇所

SUS棒

溶接箇所

試作例



溶接箇所

溶接箇所

SUS棒 (φ2mm)

模式図



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