

| Material thickness (mm) | Laser power (W) | Laser Frequency (HZ) | Duty cycle (%) | Swing Frequency (HZ) | Swing length (mm) | wire feeding speed (mm/s) | Welding wire model | Welding angle | Welding result |
|-------------------------|-----------------|----------------------|----------------|----------------------|-------------------|---------------------------|--------------------|---------------|-----------------|
| stainless steel1.0 | 500 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | plane | penetra tion |
| stainless steel1.0 | 450 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | interior | white |
| stainless steel1.0 | 500 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | External | 75%penet ration |
| stainless steel1.5 | 550 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | plane | penetra tion |
| stainless steel1.5 | 500 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | interior | white |
| stainless steel1.5 | 550 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | External | 80%penet ration |
| stainless steel2.0 | 1000 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | plane | penetra tion |
| stainless steel2.0 | 800 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | interior | white |
| stainless steel2.0 | 1000 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | External | 70%penet ration |
| stainless steel2.5 | 1200 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | plane | penetra tion |
| stainless steel2.5 | 1000 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | interior | white |
| stainless steel2.5 | 1200 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | External | 80%penet ration |
| stainless steel3.0 | 1600 | 3000 | 100 | 35 | 3 | 12 | ER304.1.2 | plane | penetra tion |
| stainless steel3.0 | 1350 | 3000 | 100 | 35 | 3 | 12 | ER304.1.2 | interior | white |
| stainless steel3.0 | 1400 | 3000 | 100 | 35 | 3 | 12 | ER304.1.2 | External | 85%penet ration |
| stainless steel3.5 | 1800 | 3000 | 100 | 30 | 3 | 12 | ER304.1.2 | plane | penetra tion |
| stainless steel3.5 | 1500 | 3000 | 100 | 30 | 3 | 12 | ER304.1.2 | interior | white |
| stainless steel3.5 | 1600 | 3000 | 100 | 30 | 3 | 12 | ER304.1.2 | External | 85%penet ration |
| stainless steel4.0 | 2700 | 3000 | 100 | 20 | 3.5 | 12 | ER304.1.6 | plane | penetra tion |
| stainless steel4.0 | 2000 | 3000 | 100 | 20 | 3.5 | 12 | ER304.1.6 | interior | color |
| stainless steel4.0 | 2500 | 3000 | 100 | 20 | 3.5 | 12 | ER304.1.6 | External | 90%penet ration |
| stainless steel5.0 | 3000 | 3000 | 100 | 15 | 4 | 12 | ER304.1.6 | plane | penetra tion |
| stainless steel5.0 | 2200 | 3000 | 100 | 15 | 4 | 12 | ER304.1.6 | interior | color |
| stainless steel5.0 | 2500 | 3000 | 100 | 15 | 4 | 12 | ER304.1.6 | External | 85%penet ration |
| stainless steel6.0 | 2600 | 3000 | 100 | 15 | 5 | 6 | 1.6 | | |
| stainless steel7.0 | 2800 | 3000 | 100 | 15 | 5 | 6 | 1.6 | | |
| stainless steel8.0 | 2950 | 3000 | 100 | 15 | 5 | 5 | 1.6 | | |
| Material thickness (mm) | Laser power (W) | Frequency (HZ) | Duty cycle (%) | Swing Frequency (HZ) | Swing length(mm) | feed wire speed | Welding wire model | Welding angle | Welding result |
| carbon steel1.0 | 500 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | plane | penetra tion |
| carbon steel1.0 | 450 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | interior | white |
| carbon steel1.0 | 500 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | External | 70%penet ration |
| carbon steel1.5 | 550 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | plane | penetra tion |
| carbon steel1.5 | 500 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | interior | white |
| carbon steel1.5 | 550 | 3000 | 100 | 35 | 2 | 12 | ER304.0.8 | External | 85%penet ration |
| carbon steel2.0 | 700 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | plane | penetra tion |
| carbon steel2.0 | 600 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | interior | white |
| carbon steel2.0 | 700 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | External | 80%penet ration |
| carbon steel2.5 | 850 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | plane | penetra tion |
| carbon steel2.5 | 750 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | interior | white |
| carbon steel2.5 | 750 | 3000 | 100 | 35 | 2.5 | 12 | ER304.1.0 | External | 85penetr ation |
| carbon steel3.0 | 1300 | 3000 | 100 | 35 | 3 | 12 | ER304.1.2 | plane | penetra tion |
| carbon steel3.0 | 1100 | 3000 | 100 | 35 | 3 | 12 | ER304.1.2 | interior | white |
| carbon steel3.0 | 1300 | 3000 | 100 | 35 | 3 | 12 | ER304.1.2 | External | 75%penet ration |
| carbon steel3.5 | 1650 | 3000 | 100 | 30 | 3 | 12 | ER304.1.2 | plane | penetra tion |
| carbon steel3.5 | 1200 | 3000 | 100 | 30 | 3 | 12 | ER304.1.2 | interior | white |

| carbon steel3.5 | 1500 | 3000 | 100 | 30 | 3 | 12 | ER304.1.2 | External | 85%penet ration |
|-------------------------|-----------------|----------------|----------------|----------------------|-------------------|------------------------|--------------------|---------------|-----------------|
| carbon steel4.0 | 2400 | 3000 | 100 | 20 | 3.5 | 12 | ER304.1.6 | plane | penetra tion |
| carbon steel4.0 | 1800 | 3000 | 100 | 20 | 3.5 | 12 | ER304.1.6 | interior | yellowi sh |
| carbon steel4.0 | 2000 | 3000 | 100 | 20 | 3.5 | 12 | ER304.1.6 | External | 85%penet ration |
| carbon steel5.0 | 2700 | 3000 | 100 | 15 | 4 | 12 | ER304.1.6 | plane | penetra tion |
| carbon steel5.0 | 2100 | 3000 | 100 | 15 | 4 | 12 | ER304.1.6 | interior | color |
| carbon steel5.0 | 2300 | 3000 | 100 | 15 | 4 | 12 | ER304.1.6 | External | 80%penet ration |
| carbon steel6.0 | 2600 | 3000 | 100 | 15 | 5 | 7 | 1.6 | | |
| carbon steel7.0 | 2800 | 3000 | 100 | 15 | 5 | 5 | 1.6 | | |
| carbon steel8.0 | 2950 | 3000 | 100 | 15 | 5 | 4 | 1.6 | | |
| Material thickness (mm) | Laser power (W) | Frequency (HZ) | Duty cycle (%) | Swing Frequency (HZ) | Swing length(mm) | feed wire speed | Welding wire model | Welding angle | Welding result |
| Galvanized sheet1.0 | 540 | 3000 | 100 | 20 | 2 | 12 | ER304.0.8 | plane | penetra tion |
| Galvanized sheet1.0 | 540 | 3000 | 100 | 20 | 2 | 12 | ER304.0.8 | interior | white |
| Galvanized sheet1.0 | 540 | 3000 | 100 | 20 | 2 | 12 | ER304.0.8 | External | 70%penet ration |
| Galvanized sheet1.5 | 690 | 3000 | 100 | 20 | 2 | 12 | ER304.0.8 | plane | penetra tion |
| Galvanized sheet1.5 | 660 | 3000 | 100 | 20 | 2 | 12 | ER304.0.8 | interior | white |
| Galvanized sheet1.5 | 690 | 3000 | 100 | 20 | 2 | 12 | ER304.0.8 | External | 75%penet ration |
| Galvanized sheet2.0 | 1200 | 3000 | 100 | 20 | 2.5 | 12 | ER304.1.0 | plane | penetra tion |
| Galvanized sheet2.0 | 1200 | 3000 | 100 | 20 | 2.5 | 12 | ER304.1.0 | interior | white |
| Galvanized sheet2.0 | 1200 | 3000 | 100 | 20 | 2.5 | 12 | ER304.1.0 | External | 85%penet ration |
| Galvanized sheet2.5 | 1500 | 3000 | 100 | 20 | 2.5 | 12 | ER304.1.0 | plane | penetra tion |
| Galvanized sheet2.5 | 1500 | 3000 | 100 | 20 | 2.5 | 12 | ER304.1.0 | interior | white |
| Galvanized sheet2.5 | 1500 | 3000 | 100 | 20 | 2.5 | 12 | ER304.1.0 | plane | 80%penet ration |
| Galvanized sheet3.0 | 1900 | 3000 | 100 | 15 | 3.0 | 12 | ER304.1.2 | plane | penetra tion |
| Galvanized sheet3.0 | 1700 | 3000 | 100 | 15 | 3.0 | 12 | ER304.1.2 | interior | white |
| Galvanized sheet3.0 | 1900 | 3000 | 100 | 15 | 3.0 | 12 | ER304.1.2 | External | 85%penet ration |
| Material thickness (mm) | Laser power (W) | Frequency (HZ) | Duty cycle (%) | Swing Frequency (HZ) | Swing length(mm) | feed wire speed (mm/s) | Welding wire model | Welding angle | Welding result |
| aluminum alloy1.0 | 600 | 3000 | 100 | 35 | 2 | 15 | ER5356.0.8 | plane | Double sided |
| aluminum alloy1.0 | 500 | 3000 | 100 | 35 | 2 | 15 | ER5356.0.8 | interior | white |
| aluminum alloy1.0 | 550 | 3000 | 100 | 35 | 2 | 15 | ER5356.0.8 | External | 75%penet ration |
| aluminum alloy1.5 | 750 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.0.8 | plane | Double sided |
| aluminum alloy1.5 | 650 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.0.8 | interior | white |
| aluminum alloy1.5 | 700 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.0.8 | External | 75%penet ration |
| aluminum alloy2.0 | 1050 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.1.0 | plane | Double sided |
| aluminum alloy2.0 | 900 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.1.0 | interior | white |
| aluminum alloy2.0 | 950 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.1.0 | External | 85%penet ration |
| aluminum alloy2.5 | 1260 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.1.0 | plane | Double sided |
| aluminum alloy2.5 | 1000 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.1.0 | interior | white |
| aluminum alloy2.5 | 1100 | 3000 | 100 | 35 | 2.5 | 15 | ER5356.1.0 | External | 80%penet ration |
| aluminum alloy3.0 | 1500 | 3000 | 100 | 35 | 3.5 | 10 | ER5356.1.2 | plane | Double sided |
| aluminum alloy3.0 | 1050 | 3000 | 100 | 35 | 3.0 | 15 | ER5356.1.2 | interior | white |
| aluminum alloy3.0 | 1200 | 3000 | 100 | 35 | 3.0 | 15 | ER5356.1.2 | External | penetrat ion80% |
| aluminium4.0 | 1700 | 3000 | 100 | 20 | 3.5 | 12 | 1.6 | | |
| aluminium5.0 | 2200 | 3000 | 100 | 18 | 4 | 12 | 1.6 | | |
| aluminium6.0 | 2500 | 3000 | 100 | 15 | 4 | 10 | 1.6 | | |
| aluminium7.0 | 2700 | 3000 | 100 | 15 | 5 | 8 | 1.6 | | |
| aluminium8.0 | 2950 | 3000 | 100 | 15 | 5 | 5 | 1.6 | | |