Instructor: Date:

Course: Unit:

Chapter 12: Manual Welding of Copper and Copper Alloys

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| Objectives | Standards |
| * Identify characteristics of copper and copper alloys. |  |
| * Identify copper and copper alloys by their identification numbers. |  |
| * Summarize the filler metal choices for copper and copper alloys. |  |
| * Recall joint preparation techniques, including preweld cleaning, weld backing, preheating, and tack welds. |  |
| * Select the correct power source, shielding gases, and electrodes for welding copper and copper alloys using DCEN. |  |
| * Apply correct procedures for welding copper and copper alloys using DCEN. |  |
| * Identify the types of copper materials that require postweld treatment. |  |

Materials, Equipment, and Supplies

Materials:

Instructional Resources

* **Teaching Visual 12-1: Copper and Copper Alloy Joint Designs.** This teaching visual shows common joint designs used when welding copper and copper alloys. Explain that copper weld joint designs are generally more open than steel designs.
* **Teaching Visual 12-2: Grooved Copper Backing.** This teaching visual shows a typical backing bar configuration. This TV can be used when discussing the use of weld backing for copper and copper alloy welds.
* Other resource:
* Other resource:

Assessment

* 1. Review Questions, Text p. 200
  2. Other assessment:

Web Site(s)

Copper Development Association

[www.copper.org](http://www.copper.org)

Additional Notes