

# Steel Quiz

*Steel Quiz*, a monthly feature in *Modern Steel Construction*, allows you to test your knowledge of steel design and construction. Answers can generally be found in the *LRFD Manual of Steel Construction*, 2<sup>nd</sup> edition, but other industry standards are often referenced.

Many thanks to **SSPC: The Society for Protective Coatings** for contributing the questions and answers for this month's Steel Quiz. Learn more about SSPC by visiting its web site:

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

If you or your firm are interested in submitting a *Steel Quiz* question or column, please contact Keith Grubb at [grubb@black-squirrel.net](mailto:grubb@black-squirrel.net)

## Questions

1. Which relative new epoxy product permits low temperature application and rapid curing?
2. Paint thickness is commonly measured in which units?
  - a. cm
  - b. feet
  - c. mils
  - d. coats
3. How much mill scale and other residue is permitted on steel cleaned to an SSPC-SP 14 surface?
4. What do SC1, 2 and 3 mean?
5. What are the limitations of a plural-component spray application system?
6. For which of the following reasons does lead ingestion have more effect on children than on adults?
  - a. Children have less body mass.
  - b. Children do not developed a resistance to lead as fast as adults.
  - c. Coatings taste better to children than to adults.
  - d. Children have higher rates of metabolism than adults.
7. For which one of the following does federal EPA have no regulation?
  - a. Air
  - b. Water
  - c. Soil
  - d. Paint
8. What is the meaning of the abbreviation tsp when referring to monitoring of industrial pollutants?
  - a. Trisodium phosphate
  - b. Total suspended particulates
  - c. Toxic soluble pollutants
  - d. Toxic solid products
9. Which of the following grades of air is suitable for supplied air respirators?
  - a. Grade A
  - b. Grade B
  - c. Grade C
  - d. Grade D
10. Above which of the following heights is fall protection required?
  - a. 6 feet
  - b. 10 feet
  - c. 20 feet
  - d. 30 feet

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## Answers

1. cycloaliphatic amine-cured epoxy
2. c, mils. A mil is 1/1000 of an inch.
3. 10% per 9 in.<sup>2</sup> of tightly adherent millscale is allowed
4. SC1,2 and 3 are levels of soluble salts allowed as non-visible surface contaminants.
5. Limitations include: initial/maintenance cost is high; proportioning/temperature control is required; skilled operator is required; and it is impractical for small jobs.
6. a.
7. d.
8. b.
9. d.
10. a.

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