

## SSPC\* PREPARATION CHART

### SURFACE PREPARATION OF FERROUS METAL

The importance of adequate surface preparation cannot be over-emphasized. Most coating problems can be traced to inadequate surface preparation. Proper adhesion cannot be attained without adequate surface preparation.

The following surface preparation recommendations are a brief synopsis of specifications developed by the Steel Structures Painting Council. A more complete description of the various specifications can be found in the SSPC Manual, Volume 2.

### SSPC-SP1 SOLVENT CLEANING

The removal of dirt, oil, grease, soil, salts and other contaminants by cleaning with solvents or commercial cleaners using one of several methods such as wiping, dipping, steam, vapor degreasing, alkaline cleaner, or acid etching.

Solvent wiping may not remove all oil and grease. Therefore, if the coating being used is not oil and grease tolerant, steam cleaning should be the method of choice. Many solvents are hazardous. Follow the safety precautions recommended for the particular solvent being used. SSPC-SP1, Solvent cleaning is included in all other SSPC Surface Preparation Specifications.

### SSPC-SP2 HAND TOOL CLEANING

Hand tools are recommended for the removal of loose rust, loose mill scale and loose paint by hand chipping, scraping, sanding and wire brushing.

Usually recommended for cleaning all areas prior to maintenance painting in mild environments.

### SSPC-SP3 POWER TOOL CLEANING

Removal of loose rust, mill scale, and loose paint to degree specified by power tool chipping, descaling, sanding, wire brushing, and grinding. SSPC-SP3 is not adequate surface preparation for severe environments.

### SSPC-SP5 WHITE METAL BLAST CLEANING

Complete removal of all visible rust, mill scales, paint, and foreign matter by blast cleaning by centrifugal wheels or air nozzle using sand, grit or shot. Usually specified for high performance coatings in aggressive environments (i.e., corrosive atmosphere or immersion service).

### SSPC-SP6 COMMERCIAL BLAST CLEANING

The removal of all visible rust, mill scale, paint and other foreign matter by blasting with air nozzle or centrifugal wheels. Staining from rust or mill scale shall be limited to no more than 33 percent of each square inch of surface area. Used where a high, but not perfect, degree of blast cleaning is required. Not recommended for immersion service.

### SSPC-SP7 BRUSH-OFF BLAST CLEANING

Blast cleaning of all except tightly adhering residues of mill scale, rust and coatings. Mill scale, rust and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Normally used when surface profile is to be enhanced before repainting.

### SSPC-SP8 PICKLING

The complete removal of all rust, mill scale and foreign matter by acid pickling or electrolytic pickling. Pickling is an effective method for removing contaminants on structural members, beams and plates prior to fabrication. Pickling is impractical for field use.

**SSPC PREPARATION CHART****SSPC-SP10 NEAR-WHITE BLAST CLEANING**

The removal of all visible dirt, rust, mill scale, paint and other foreign matter. At least 95% of each square inch of surface area must be equivalent to SSPC-SP5 White Metal Blast.

Less costly than SSPC-SP5 and adequate for all but the most severe environments.

**WARNING!** If you scrape, sand or remove old paint from any surface, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD (5323) or log on to [www.epa.gov/lead](http://www.epa.gov/lead).

**NOTE:**

References in this section to "SSPC" are taken from Ch.2 of "Systems and Specifications - SSPC Painting Manual," Vol. 2, 8th Edition, Editor Janet Rex, published in 2000 by The Society for Protective Coatings (formerly Steel Structures Painting Council), 40 24th Street, 6th Floor, Pittsburgh, PA 15222-4656. Toll Free Phone: (877) 281-7772. Website: [www.sspc.org](http://www.sspc.org).