

Society for Protective Coatings – Cleaning Standards Abbreviated Version

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SSPC-SP 1, Solvent Cleaning

Solvent cleaning is a method for removing all visible oil, grease, soil, drawing and cutting compounds, and other soluble contaminants from steel surfaces.

It is intended that solvent cleaning be used prior to the application of paint, and in conjunction with surface preparation methods specified for the removal of rust, mill scale, or paint.

SSPC-SP 2, Hand Tool Cleaning

Hand tool cleaning is a method of preparing steel surfaces by the use of non-power hand tools.

Hand tool cleaning removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife.

SSPC-SP 3, Power Tool Cleaning

Power tool cleaning removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter. It is not intended that adherent mill scale, rust, and paint be removed by this process. Mill scale, rust, and paint are considered adherent if they cannot be removed by lifting with a dull putty knife.

SSPC-SP 5/NACE No. 1, White Metal Blast Cleaning

A white metal blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter.

SSPC-SP 6/NACE No. 3, Commercial Blast Cleaning

A commercial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter, except for staining as noted.

Random staining shall be limited to no more than 33 percent of each unit area of surface as defined, and may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating.

SSPC-SP 7/NACE No. 4, Brush-Off Blast Cleaning

A brush-off blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, dust, loose mill scale, loose rust, and loose coating.

Tightly adherent mill scale, rust, and coating may remain on the surface. Mill scale, rust, and coating are considered tightly adherent if they cannot be removed by lifting with a dull putty knife after abrasive blast cleaning has been performed.

SSPC-SP 8, Pickling

Pickling is a method of preparing steel surfaces by chemical reaction, electrolysis, or both. The surfaces when viewed without magnification shall be free of all visible mill scale and rust.

SSPC-SP 10/NACE No. 2, Near-White Blast Cleaning

A near-white metal blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products, and other foreign matter, except for staining as noted.

Random staining shall be limited to no more than 5 percent of each unit area of surface as defined, and may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating.

SSPC-SP 11, Power Tool Cleaning to Bare Metal

This standard is suitable where a roughened, clean, bare metal surface is required, but where abrasive blasting is not feasible or permissible.

This standard differs from [SSPC-SP 3](#), Power Tool Cleaning, in that SSPC-SP 3 requires only the removal of loosely adherent materials, and does not require producing or retaining a surface profile.

This standard differs from [SSPC-SP 15](#), Commercial Grade Power Tool Cleaning, in that SSPC-SP 15 allows stains of rust, paint, or mill scale to remain on the surface. SSPC-SP 11 only allows materials to remain at the bottom of pits.

SSPC-SP 12/NACE No. 5, Surface Preparation and Cleaning of Metals by Waterjetting Prior to Recoating

This standard is written primarily for applications in which the substrate is carbon steel. However, waterjetting can be used on

nonferrous substrates such as bronze, aluminum, and other metals such as stainless steel. This standard does not address the cleaning of concrete. Cleaning of concrete is discussed in [SSPC SP-13/NACE No. 6](#).

SSPC-SP 13/NACE No. 6, Surface Preparation of Concrete

An acceptable prepared concrete surface should be free of contaminants, laitance, loosely adhering concrete, and dust, and should provide a sound, uniform substrate suitable for the application of protective coating or lining systems.

When required, a minimum concrete surface strength, maximum surface moisture content, and surface profile range should be specified in the procurement documents (project specifications).

SSPC-SP 14/NACE No. 8, Industrial Blast Cleaning

An industrial blast cleaned surface, when viewed without magnification, shall be free of all visible oil, grease, dust, and dirt. Traces of tightly adherent mill scale, rust, and coating residues are permitted to remain on 10% of each unit area of the surface if they are evenly distributed.

The traces of mill scale, rust, and coating shall be considered tightly adherent if they cannot be lifted with a dull putty knife. Shadows, streaks, and discolorations caused by stains of rust, stains of mill scale, and stains of previously applied coating may be present on the remainder of the surface.

SSPC-SP 15, Commercial Grade Power Tool Cleaning

A commercial grade power tool cleaned steel surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, rust, coating, oxides, mill scale, corrosion products, and other foreign matter, except as noted.

Random staining shall be limited to no more than 33 percent of each unit area of surface as defined. Staining may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating. Slight residues of rust and paint may also be left in the bottoms of pits if the original surface is pitted.

This standard differs from [SSPC-SP 3](#), Power Tool Cleaning, in that a higher degree of surface cleanliness is required, and a minimum surface profile of 25 micrometers (1.0 mil) will be retained or produced.

This standard differs from [SSPC-SP 11](#), Power Tool Cleaning to Bare Metal, in that stains of rust, paint, or mill scale may remain on the surface.