



## SSPC STANDARDS

### Learn About:

- Equipment Needed
- Application of Bottom Paint and Primers
- Correct Sea Hawk Products to Use



## TECHNICAL BULLETIN

### *SSPC STANDARDS*

#### **SSPC-SP-1 Solvent Cleaning**

Purpose: To cover solvent cleaning of bare steel surfaces. To remove all visible oil, grease, soil, drawing and cutting compounds and other soluble contaminants from metal surfaces. May also be applicable to cleaning aluminum, lead, fiberglass and wood surfaces. The paint supplier is responsible to provide the proper cleaning compound to clean the surface.

#### **SSPC-SP-2 Hand Tool Cleaning**

Purpose: To provide a method for cleaning steel surfaces prior to painting. Does not include the use of power tool equipment such as grinders, needle guns, etc. Hand tool cleaning removes all loose mill scale, loose rust, loose paint or any other loosely adhering foreign matter. It is not intended that hand tool cleaning remove all tightly adhering mill scale, rust or paint. Loosely adhering refers to any foreign matter that cannot be lifted with a dull putty knife. Pictorial standard for SP-2 Cleaning are found in the SSPC Visual standards SSPC-Vis.

#### **SSPC-SP-3 Power Tool Cleaning**

Purpose: To provide a standard which covers the use of power tool equipment for steel surface cleaning prior to painting. This standard includes power assisted power tool cleaning to remove all loose mill scale, loose rust, loose paint or other loosely adhering foreign matter. It is not intended that power tool cleaning remove all tightly adhering mill scale, rust or paint. Loosely adhering refers to any foreign matter that cannot be lifted with a dull putty knife. Typically, power tool cleaning covers the use of grinding equipment, power sanders, needle guns, etc. Pictorial standard for SP-3 Power Tool Cleaning are found in SSPC-Vis standards SSPC-Vis.

#### **SSPC-SP-5 White Metal Blast Cleaning - also covers NACE standard No. 1**

Purpose: This standard covers the use of blasting equipment used with abrasives to clean steel surfaces whether bare or previously painted and where a 'white' metal cleanliness is required. This standard includes the condition of the cleaned surface and the materials and procedures to achieve and verify that condition. A 'white' metal surface, when properly cleaned without magnification, shall be free of all visible oil, grease, dirt, dust, mill scale, rust, paint/coatings, oxides, corrosion products or other foreign matter. Visual standard found in SSPC-SP-Vis.

#### **SSPC-SP-6 Commercial Blast Cleaning - also covered under NACE standard No. 3**

Purpose: Covers the requirements of commercial blast cleaning of coated or previously coated steel surfaces using abrasive blast media. This standard includes the condition of the cleaned surface and the materials and procedures to achieve and to verify that condition. When viewed without magnification, a 'commercially cleaned surface' shall be free of all oil, grease, dust, dirt, mill scale, rust, paint/coatings, corrosion products and any other foreign matter. Visual standard found in SSPC-SP-Vis.

#### **SSPC-SP-7 Brush Off Blast Cleaning - also covered under NACE standard No.4**

Purpose: This standard covers the commercial blast cleaning of coated and uncoated steel surfaces with abrasive blasting media. A brush-off blast cleaned surface shall be free of all visible oil, grease, dirt, loose mill scale, loose rust and loose coating. Tightly adhering mill scale, rust and coating may remain on the surface. Tightly adhering means they cannot be lifted with a dull putty knife after the blast cleaning.

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#### **SSPC-SP-8 Pickling**

Purpose - Pickling is a method of preparing the steel surface by chemical reaction, electrolysis or both. The pickled surface shall be free of visible mill scale and rust. Rarely used in the commercial marine market.

#### **SSPC-SP-10 Near White Blast Cleaning - also covered under NACE standard No.2**

Purpose: This joint standard covers the commercial blast cleaning of uncoated and coated steel surfaces by use of abrasives. A near-white metal surface shall, when viewed without magnification, be free of all oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter. One of the most commonly required surface preparations in the commercial marine market. Random staining shall be limited to no more than 5% of each area inspected. Areas are defined as approximately 9.0 sq. in. (5,800 sq. mm) 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 of Base Metal**

Purpose - This standard covers the requirements for power tool cleaning to produce a bare metal surface and to retain or produce a minimum surface profile of 1.0 mil (25 microns). 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 in that SP-3 requires only the removal of loosely adhering materials and does not require producing or retaining a surface profile. This standard also differs from SSPC-SP-15 Commercial Power Tool Cleaning in that SP-15 allows for 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 Surface Preparation and Cleaning of Metal by Waterjetting Prior to Recoating - also covered under NACE standard No. 5**

Purpose: Written primarily for use on applications involving carbon steel surfaces, but can be used on non-ferrous metals as well including bronze, aluminum and other metals such as stainless steel. Does not address the cleaning of concrete. This standard describes the use of waterjetting to achieve a defined degree of cleanliness prior to the application of protective coating or lining system. This can be on external or internal surfaces. This standard only covers the use of water, not water and abrasives.

#### **SSPC-SP-13 Surface Preparation of Concrete - also covered under NACE No. 6**

Purpose - This standard covers the requirements for surface preparation of concrete by mechanical, chemical or thermal methods prior to application of bonded protective coating or lining systems. The standard covers all types of cementitious surfaces including cast-in-place concrete floors and walls, precast slabs, masonry walls and shotcrete surfaces. The cleaned surface shall 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.

#### **SSPC-SP-14 Industrial Blast Cleaning = also covered by NACE No. 8**

Purpose: Designed to cover the requirements for industrial blast cleaning of uncoated or coated steel surfaces by the use of abrasives. Very similar to SSPC-SP-6 Commercial Blast Cleaning except this standard allows for a residues to remain provided they are tightly adhering (mill scale, rust and coatings) and cover no more than 10% of the unit area being blasted. The unit area is defined as 9.0 sq.in. (approximately 5800 sq. mm.)

#### **SSPC-SP-15 Commercial Grade Power Tool Cleaning**

Purpose - Very similar to SSPC-SP-3 except this standard requires a higher degree of surface cleanliness and a minimum surface profile of 1.0 mil (25 microns). Also very similar to SSPC-SP-11 other than this standard allows for up to 33% of each area unit can have random staining from rust, mill scale or coating and a slight residue can remain in the bottoms of pits if the original surface is pitted.