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Swedish Standards Association
Standard SIS 05 59 00
ISO 8501
~~Steel Structures Painting Council~~
~~SSPC-Vis 3~~
SSPC: The Society for Protective Coatings
SSPC VIS 1, VIS 3, VIS 4/NACE VIS 7, VIS 5/NACE VIS 9
Danish Standards Association
Danish Standard DS 2019
European Committee of Paint and Printing
Ink Manufacturers' Association

~~Standard Pictorial Surface Preparation Standards for Painting Steel Surfaces~~

Standard Practice for Use of Pictorial Surface Preparation Standards and Guides for Painting Steel Surfaces[1]

This standard is issued under the fixed designation D 2200; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

~~ε[1] NOTE—Footnotes were corrected editorially in June 2001.~~
~~ε[2] NOTE—Referenced Documents section was corrected editorially in October 2007.~~

1. Scope

1.1 The visual surface preparation standards consist of a series of color prints available as separate publications. ~~Three~~Five different sets of photographs are described in this standard, designated as Method A (ISO/Swedish Standard[2]~~) and Method B and C (SSPC Standards~~) and Methods B through E (SSPC Guides and Reference Photographs[3]). The ~~three~~ methods differ in the depiction of the initial surface, in the definition and depiction of the cleaning conditions, and in the number of cleaning methods included. Because of these differences, the specifier should state ~~whether Method A, Method B, or C should be used.~~ which method to use.

1.2 The colored visual surface preparation standards represent different conditions of hot rolled carbon steel before and after surface preparation. Prior to cleaning, there are four rust grades, A to D, that cover the range from intact mill scale to 100 % rusted and pitted steel. The standards then depict the appearance of the ~~four grades~~initial conditions after cleaning by one or more methods (for example, dry abrasive blast cleaning) to various degrees of thoroughness. In addition, Method B includes three painted conditions that contain various degrees of deterioration. The Guide[3] depicts these conditions after various degrees of dry abrasive blast cleaning. Method C includes four rust grades and three painted conditions that contain various degrees of ~~rusting.~~deterioration. The ~~Standard~~Guide[4] ~~depicts these conditions after various grades of hand and power tool cleaning.~~ depicts these conditions after various degrees of hand and power tool cleaning. Method D includes two rust grades and four painted conditions that contain

[1] This ~~standard~~practice is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.46 on Industrial Protective Coatings.

The pictorial standards described were prepared by the Swedish Corrosion Institute and have been jointly approved by ASTM, The Society For Protective Coatings (SSPC) ~~(Vis~~(VIS 1), and the Swedish Standardizing Commission.

Current edition approved June ~~10, 2001.~~1, 2008. Published June ~~2001.~~2008. Originally approved in 1966. Last previous edition approved in ~~1995~~2001 as D 2200 – 95 (2001) ε2.

[2] The pictorial surface preparation standard Method A is available from The Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, http://www.sspc.org and Sveriges Standardiseringskommission, Box 3295, Stockholm 3, Sweden.

[3] The Visual ~~Standards~~Guide for Method B and surface cleanliness definitions are available from The Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, http://www.sspc.org.

[4] The Visual ~~Standards~~Guide for Method C and the surface cleanliness definitions are available from The Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, http://www.sspc.org.

various degrees of deterioration. The Guide[5] depicts these conditions after various degrees of water jetting, with three levels of flash rusting. Method E includes two rust grades. The Guide[6] depicts these conditions after various degrees of wet abrasive blast cleaning, with three levels of flash rusting.

2. Referenced Documents

2.1 ~~*Other Standards:*~~

~~ISO 8501–1 Preparation of Steel Substrates Before Application of Paints and Related Products—Visual Assessment of Surface Cleanliness[3,4]~~

~~SSPC VIS 1Visual Standard For Abrasive Blast Cleaned Steel[2~~Other Documents:

Pictorial Surface Preparation Standards and Guides[2] ~~,3,4~~

~~SSPC VIS 3Guide and Reference Photographs for Steel Surfaces Prepared by Hand and Power Tool Cleaning[2,3] ,4,5,6~~

Surface Cleanliness Definitions[3] ,[4]

3. Terminology

3.1 *Definitions:*

3.1.1 The cleanliness definitions for the Method A visual surface preparation standard appear in the text of the pictorial surface preparation standards publication.[2] ~~The definitions for Methods B and C are found in a separate publication.[3,4]~~ The definitions for Methods B, C, D, and E are found in a separate publication.[3,4,5,6]

4. Significance and Use

~~4.1The appearance of the various degrees of blast cleaning are influenced by the initial rust grades of the steel being cleaned. The standards aid visually in judging and evaluating the degree of rusting before cleaning and the degree of cleaning of steel surfaces prior to painting.~~

~~4.2Three methods for visual standards have evolved because of differences in the practice of using visual standards throughout the world. In Europe, the visual standards (Method A) are used as the primary means of determining the degree of cleaning. In the US, the SSPC written definitions take precedence with the visual standards used as a supplement. The visual standards of Methods B and C comply with the SSPC definitions.~~

4.1 The appearance of the various degrees of dry and wet abrasive blast cleaning, hand and power tool cleaning and water jetting are influenced by the initial rust grades of the steel being cleaned and/or the type and condition of the coating on the existing steel. The standards and guides aid visually in judging and evaluating the degree of rusting and/or paint deterioration before cleaning and the degree of cleaning of steel surfaces prior to painting.

4.2 Five methods have evolved because of differences in the practice of using visual standards and guides throughout the world, and the method of surface preparation employed. In Europe, the visual standards (Method A) are used as the primary means of assessing the degree of cleaning. In the US, the SSPC written definitions take precedence with the visual guides and reference photographs used as a supplement. The visual guides and reference photographs of Methods B, C, and D conform to the SSPC written definitions. There are no written definitions for Method E.

5. ~~Procedure and Interpretation~~

~~Method A—ISO/Swedish Standard (Hand Tool Cleaning, Power Tool Cleaning, Abrasive Blasting, Flame Cleaning)~~

~~5.1Determine the method of cleaning to be used (for example, hand/power tool cleaning, abrasive blast cleaning, or flame cleaning).~~

~~5.2Determine the initial condition of the steel in accordance with four initial grades (A, B, C, or D).~~

~~5.3Following the cleaning operation, compare the surface prepared with the photographs showing the degree of thoroughness for that particular initial condition. Select the degree that most closely corresponds to the prepared surface.~~

~~5.4Repeat the procedure for representative areas of structure and record all three items (initial condition, method of cleaning, and degree of thoroughness achieved).~~

~~Method B, SSPC Visual Standard Vis 1 (Abrasive Blasting Only)~~

~~5.5Determine the degree of blast cleaning to be employed.~~

~~5.6Determine the initial condition of steel in accordance with photographs A, B, C, and D.~~

~~5.7Following the cleaning operation, compare the prepared surface with the photographs showing the degree of thoroughness for that particular initial condition. Select the degree that most closely corresponds to the prepared surface.~~

[5] The Visual Guide for Method D and the surface cleanliness definitions are available from The Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, http://www.sspc.org.

[6] The Visual Guide for Method E and the surface cleanliness definitions are available from The Society for Protective Coatings (SSPC), 40 24th St., 6th Floor, Pittsburgh, PA 15222-4656, http://www.sspc.org.