Data Sheet / Instructions

Rust Grade Book



Paint Test Equipment



International Standard ISO 8501-1

Rust Grade Book

ISO 8501-1: Preparation of steel substrates before application of paints and related products. Visual assessment of surface cleanliness. Part 1: Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings.

The Rust Grade Book specifies a series of Rust Grades and Preparation Grades of blast-cleaned steel surfaces. The various Grades are defined by written descriptions together with photographs.

The Rust Grade Book incorporates pictures originating from the Swedish Standard SIS SS 05 59 00.

The Book identifies four levels (designated as Rust Grades) of mill scale and rust that are commonly found on surfaces of uncoated erected steel and steel held in stock. It also identifies certain degrees of visual cleanliness (designated as Preparation Grades) after surface preparation of uncoated steel surfaces and of steel surfaces after overall removal of any previous coating.

Four Rust Grades, designated A, B, C, and D respectively are specified.

The Rust Grades are defined by the following written descriptions:

Grade A. Steel surface largely covered with adhering mill scale but little, if any, rust.

Grade B. Steel surface which has begun to rust and from which the mill scale has begun to flake.

Grade C. Steel surface on which the mill scale has rusted away or from which it can be scraped, but with slight pitting visible under normal vision.

Grade D. Steel surface on which the mill scale has rusted away and on which general pitting is visible under normal vision.

There are also fourteen Preparation Grades by blast-cleaning, indicating the degree of cleaning, together with detailed descriptions of the surface appearance to the following Sa Grades.

Grade Sa 1. Light blast-cleaning. Grade Sa 2. Thorough blast-cleaning. Grade Sa 2½. Very thorough blast-cleaning. Grade Sa 3. Blast-cleaning to visually clean steel.

Rust Grade Book Specifications			
Part No	Compiled by	Edition	Translation
U1007	ISO	Second. 2007-05-01	English, French, German, Swedish



Example Rust Grades C and D

This picture shows the Rust Grades of C and D.

Grade C. Steel surface on which the mill scale has rusted away or from which it can be scraped, but with slight pitting visible under normal vision.

Grade D. Steel surface on which the mill scale has rusted away and on which general pitting is visible under normal vision.



Example Rust Grade C to Sa 21/2 & Sa 3

This picture shows the Preparation Grades of Sa $2\frac{1}{2}$ and Sa 3 on a Rust Grade of C.

Grade Sa 21/2. Very thorough blast-cleaning.

When viewed without magnification, the surface shall be free from visible oil, grease and dirt and from mill scale, rust, paint coatings and foreign matter.

Any remaining traces of contamination shall show only as slight stains in the form of spots or stripes.

Grade Sa 3. Blast-cleaning to visually clean steel.

When viewed without magnification, the surface shall be free from visible oil, grease and dirt and from mill scale, rust, paint coatings and foreign matter.

It shall have a uniform metallic colour.



Example Rust Grade D to Sa 21/2 & Sa 3

This picture shows the Preparation Grades of Sa $2\frac{1}{2}$ and Sa 3 on a Rust Grade of D.

The Rust Grades and Preparation Grades shown are examples taken from the Rust Grade Book to show the quality of the pictures and to assist with the understanding of the book.



Paint Test Equipment reserves the right to alter specifications without prior notice. Copyright Paint Test Equipment.

Paint Test Equipment

3–4 The Courtyard Greenfield Farm Estate Congleton, Cheshire CW12 4TR, England

www.paint-test-equipment.com

Tel: +44 (0)1260 275614

e-mail: sales@paint-test-equipment.com

Distributor