ISO 12944-4:2017-11 (E)

Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 4: Types of surface and surfa ce preparation

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 General 4

5 Types of surface to be prepared 4
5.1 General 4
5.2 Uncoated surfaces 4
5.3 Metal-coated surfaces 4
5.3.1 Thermally sprayed surfaces 4
5.3.2 Hot-dip-galvanized surfaces 4
5.3.3 Zinc-electroplated surfaces 4
5.3.4 Sherardized surfaces 5
5.4 Surfaces painted with prefabrication primer 5
5.5 Other painted surfaces 5
5.6 Surfaces with chemical treatment 5

6 Surface preparation methods 5
6.1 General 5
6.2 Water, solvent and chemical cleaning 5
6.2.1 Water cleaning 5
6.2.2 Steam cleaning 5
6.2.3 Emulsion cleaning 6
6.2.4 Alkaline cleaning 6
6.2.5 Organic-solvent cleaning 6
6.2.6 Stripping 6
6.2.7 Acid pickling 6
6.2.8 Chemical treatment 6
6.3 Mechanical cleaning 6
6.3.1 Hand-tool cleaning 6
6.3.2 Power-tool cleaning 6
6.3.3 Blast-cleaning 7
6.3.4 Water jetting 8

7 Surface preparation grades 8
7.1 General 8
7.2 Uncoated surfaces 9
7.3 Metal-coated surfaces 9
7.4 Surfaces painted with prefabrication primer 9
7.5 Other painted surfaces 9

8 Surfaceprofile(roughness)andsurfaceprofilegrading 10

9 Assessment of prepared surfaces 10

10 Temporary protection of prepared surfaces from corrosion and/or contamination 10

11 Preparation of temporarily or partly protected surfaces before application of further coatings 10

12 Preparation of hot-dip-galvanized surfaces 11
12.1 Unweathered surfaces 11
12.2 Weathered surfaces 11

13 Preparation of thermally sprayed metal (zinc and aluminium) surfaces 11

14 Preparation of zinc-electroplated and sherardized surfaces 11

15 Preparation of other coated surfaces 12

16 Recommendations regarding pollution and the environment 12

17 Health and safety 12

Annex A (normative) Standard preparation grades for primary (overall) surface preparation 13

Annex B (normative) Standard preparation grades for secondary (partial) surface preparation 15

Annex C (informative) Procedures for removal of extraneous layers and foreign matter, native layers and contaminants 17

Bibliography 19