DIN EN ISO 12944-4:2018-04 (E)

Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 4: Types of surface and surface preparation (ISO 12944-4:2017)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**

2 Normative references ... **7**

3 Terms and definitions ... **8**

4 General ... **10**

5 Types of surface to be prepared ... **10**
5.1 General ... 10
5.2 Uncoated surfaces ... 10
5.3 Metal-coated surfaces ... 10
5.3.1 Thermally sprayed surfaces ... 10
5.3.2 Hot-dip-galvanized surfaces ... 10
5.3.3 Zinc-electroplated surfaces ... 10
5.3.4 Sherardized surfaces ... 11
5.4 Surfaces painted with prefabrication primer ... 11
5.5 Other painted surfaces ... 11
5.6 Surfaces with chemical treatment ... 11

6 Surface preparation methods ... **11**
6.1 General ... 11
6.2 Water, solvent and chemical cleaning ... 11
6.2.1 Water cleaning ... 11
6.2.2 Steam cleaning ... 11
6.2.3 Emulsion cleaning ... 12
6.2.4 Alkaline cleaning ... 12
6.2.5 Organic-solvent cleaning ... 12
6.2.6 Stripping ... 12
6.2.7 Acid pickling ... 12
6.2.8 Chemical treatment ... 12
6.3 Mechanical cleaning ... 12
6.3.1 Hand-tool cleaning ... 12
6.3.2 Power-tool cleaning ... 12
6.3.3 Blast-cleaning ... 13
6.3.4 Water jetting ... 14

7 Surface preparation grades ... **14**
7.1 General ... 14
7.2 Uncoated surfaces ... 15
7.3 Metal-coated surfaces ... 15
7.4 Surfaces painted with prefabrication primer ... 15
7.5 Other painted surfaces ... 15

8 Surface profile (roughness) and surface profile grading ... **16**

9 Assessment of prepared surfaces ... **16**

10 Temporary protection of prepared surfaces from corrosion and/or contamination 16

11 Preparation of temporarily or partly protected surfaces before application of further coatings 16

12 Preparation of hot-dip-galvanized surfaces 17

12.1 Unweathered surfaces 17

12.2 Weathered surfaces 17

13 Preparation of thermally sprayed metal (zinc and aluminium) surfaces 17

14 Preparation of zinc-electroplated and sherardized surfaces 17

15 Preparation of other coated surfaces 18

16 Recommendations regarding pollution and the environment 18

17 Health and safety 18

Annex A (normative) **Standard preparation grades for primary (overall) surface preparation 19**

Annex B (normative) **Standard preparation grades for secondary (partial) surface preparation 21**

Annex C (informative) **Procedures for removal of extraneous layers and foreign matter, native layers and contaminants 23**

Bibliography 25