

Code of practice for

Cleaning and surface repair of buildings —

Part 3: Metals (cleaning only)

Confirmed
October 2008

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Elements and Components (of Diverse Materials) for Buildings Standards Policy Committee (ECB/-) to Technical Committee ECB/30, upon which the following bodies were represented:

- Aluminium Federation
- Brick Development Association
- British Cement Association
- British Ceramic Research Ltd.
- British Steel Industry
- Concrete Society
- Council for the Care of Churches
- Department of the Environment (Building Research Establishment)
- Ecclesiastical Architects and Surveyors' Association
- Glassfibre Reinforced Cement Association
- Historic Buildings and Monuments Commission for England
- Local Authority Organizations
- National GRP Construction Federation
- National Trust
- Patent Glazing Contractors' Association
- Royal Institute of British Architects
- Society for Protection of Ancient Buildings
- Steel Window Association
- Stone Federation

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Foreword

This Part of BS 6270 has been prepared under the direction of the Elements and Components (of Diverse Materials) for Buildings Standards Policy Committee. It is intended to give building owners, architects, surveyors, engineers and contractors general background information when considering cleaning.

Part 3 of BS 6270 describes the main methods in common use for cleaning of metals and alloys and draws attention to some of the problems encountered in practice. However, in view of the widely differing ages and locations of buildings, only general guidance is given to enable the user to select the most appropriate method for the particular building concerned. This Part of BS 6270 should be used in conjunction with section 1 of BS 6270-1:1982.

Where the code recommends seeking specialist advice, information may be obtained from organizations represented on the committee (see the committees responsible on the inside front cover).

WARNING. This British Standard calls for the use of substances and/or procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

In particular attention is drawn to the Control of Substances Hazardous to Health Regulations (1989).

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Part of BS 6270 gives recommendations for the cleaning of metals and alloys which are not intended to be covered with a protective coating, renewable on site in the course of maintenance.

Structural repairs are not covered by this code. Whilst in a few cases it may be possible to effect surface repairs to metals, because of the specialist nature of such processes and the wide range of metals involved, no recommendations are given in this code. No recommendations are given for the cleaning of wrought iron or mild steel which are normally provided with a protective coating.

NOTE 1 For the preparation of iron and steel surfaces prior to protective coating, reference should be made to BS 5493.

NOTE 2 Where work on features of historic or artistic importance is being considered, guidance from specialists should be sought, since the general recommendations given in this code may need to be supplemented.

NOTE 3 For guidance on the structural use of steel and aluminium, reference should be made to BS 5950 and CP 118¹⁾ respectively.

NOTE 4 Where there is any doubt about the structural nature of defects, advice should be sought from a chartered civil or structural engineer or other appropriately qualified person.

NOTE 5 The cleaning recommendations in this standard may not, in some cases, be effective against agents applied during acts of vandalism.

NOTE 6 The titles of the publications referred to in this code are listed on the inside back cover. See also Appendix A for a bibliography.

2 Definitions

For the purposes of this code the definitions given in BS 6100 or in the British Standard for the given material or component apply, together with the following.

structural repairs

repairs required to ensure that a structure will continue to carry existing loads, and/or to enable the structure to carry additional loads, with an acceptable factor of safety

3 Preliminary considerations

3.1 General

Since there is no such thing as a maintenance-free construction, the following essential points should be borne in mind.

- a) The past history of the building should be examined, first checking any records that may exist.
- b) The need for surface repairs should be distinguished from the need for structural repairs (see clause 2). If in doubt, specialist advice should be sought.

- c) Where cleaning and/or surface repair work is to be undertaken, the causes of the dirt, corrosion or defects should be established.

3.2 Reasons for cleaning

3.2.1 Introduction

It is convenient to classify reasons for cleaning under two headings: aesthetics and maintenance. In practice, cleaning a building for aesthetic reasons may reveal the need for maintenance.

Dirt does not necessarily harm building materials and a visually acceptable and established pattern of weathering need not be disturbed. However, the primary aim should be to keep the structure or components free from deterioration.

If maintenance has been sufficiently frequent, the dirt will be loose and corrosive products will not have had time to do serious harm.

The principal factors affecting frequency of cleaning are given in Table 1.

3.2.2 Aesthetics

Even where maintenance is not required, cleaning may be required in order to:

- a) reveal the nature, colour or details of an existing building;
- b) unify the appearance of a building which has been altered, extended or repaired;
- c) facilitate the choice of suitable materials for a proposed extension or for repairs;
- d) reflect more light on to other buildings;
- e) promote personal or civic pride.

3.2.3 Maintenance

It may prove necessary to clean the building for the following reasons:

- a) to remove harmful deposits from the fabric;
- b) to expose defects or corrosion in order to establish the extent and nature of repairs needed.

It should be borne in mind that the cost of normal maintenance cleaning of metalwork is only a fraction of the cost of restoration after neglect.

3.3 Buildings of architectural or historic interest

Where the building concerned is statutorily listed or in a conservation area, the local authority may discourage or even prohibit the cleaning of individual buildings, so as to conserve the uniform appearance of whole streets or areas.

¹⁾ In course of revision.