

International Standard



4628/5

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Paints and varnishes — Evaluation of degradation of paint coatings — Designation of intensity, quantity and size of common types of defect —
Part 5 : Designation of degree of flaking

Peintures et vernis — Évaluation de la dégradation des surfaces peintes — Désignation de l'intensité, de la quantité et de la dimension des types courants de défauts — Partie 5 : Désignation du degré d'écaillage

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4628/5 was developed by Technical Committee ISO/TC 35, *Paints and varnishes*.

This International Standard, formerly section five of draft Addendum 1 to International Standard ISO 4628/1-1978, was submitted to the member bodies in December 1979 and approved by the member bodies of the following countries :

Australia	Israel	South Africa, Rep. of
Austria	Italy	Spain
Brazil	Kenya	Sweden
China	Korea, Rep. of	Switzerland
France	Netherlands	United Kingdom
Germany, F. R.	Norway	USSR
India	Poland	
Ireland	Romania	

No member body expressed disapproval of the document.

Paints and varnishes — Evaluation of degradation of paint coatings — Designation of intensity, quantity and size of common types of defect —

Part 5 : Designation of degree of flaking

0 Introduction

This International Standard is one of a series of standards dealing with the sampling and testing of paints, varnishes and related products.

The other parts of ISO 4628 already published or in course of preparation are :

Part 1 : General principles and rating schemes.

Part 2 : Designation of degree of blistering.

Part 3 : Designation of degree of rusting.

Part 4 : Designation of degree of cracking.

Part 6 : Designation of degree of chalking.¹⁾

Part 1 of ISO 4628 defines the system for designating the quantity and size of common types of defects of paint coatings and outlines the basic principles of the system in respect of designation of the quantity and size of defects, in particular the defects caused by ageing and weathering.

Parts 2 to 6 provide auxiliary pictorial or other reference scales for rating particular types of defect. As far as possible, these scales are based on existing well-established schemes.

1 Scope and field of application

This part of ISO 4628 provides pictorial standards for designating the degree of flaking of paint coatings.

2 Rating

Rate the quantity of flaking on the basis of the relative area flaked, by reference to table 1 and using the figures 1 and 2 as examples.

NOTE — Figure 1 shows flaking without preferential direction and figure 2 shows flaking with preferential direction due to anisotropy in the substrate.

Table 1 — Scale for the designation of the quantity of flaking

Class	Flaked area %
0	0
1	0,1
2	0,3
3	1
4	3
5	15

Designate the average size of the individual areas exposed by flaking, if appropriate, according to the classification given in table 2.

Table 2 — Scale for the designation of the approximate average size of areas exposed by flaking

Class	Size of flaking (largest dimension)
0	not visible under X 10 magnification
1	up to 1 mm
2	up to 3 mm
3	up to 10 mm
4	up to 30 mm
5	larger than 30 mm

Indicate the depth of flaking by reference to the level in the coating system where failure occurs.

1) At present at the stage of draft.

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Two main types of failure by flaking are to be distinguished :

- a) top coat(s) flaking from underlying coat;
- b) whole coating system flaking from substrate.

d) the numerical rating of the size of flaking;

e) the depth of cracking (a or b), for example :

flaking 3 (S2) a

Where a test piece exhibits flaking of various sizes, quote as the size rating that of the largest flaked areas which are numerous enough to be typical of the test piece.

If necessary, the standard assessment may be amplified in words. The use of such comments shall, however, be avoided wherever possible;

e) the date of the examination.

3 Test report

The test report shall contain at least the following information :

- a) the type and identification of the product tested;
- b) a reference to this International Standard (ISO 4628/5);
- c) the numerical rating of the quantity of flaking;

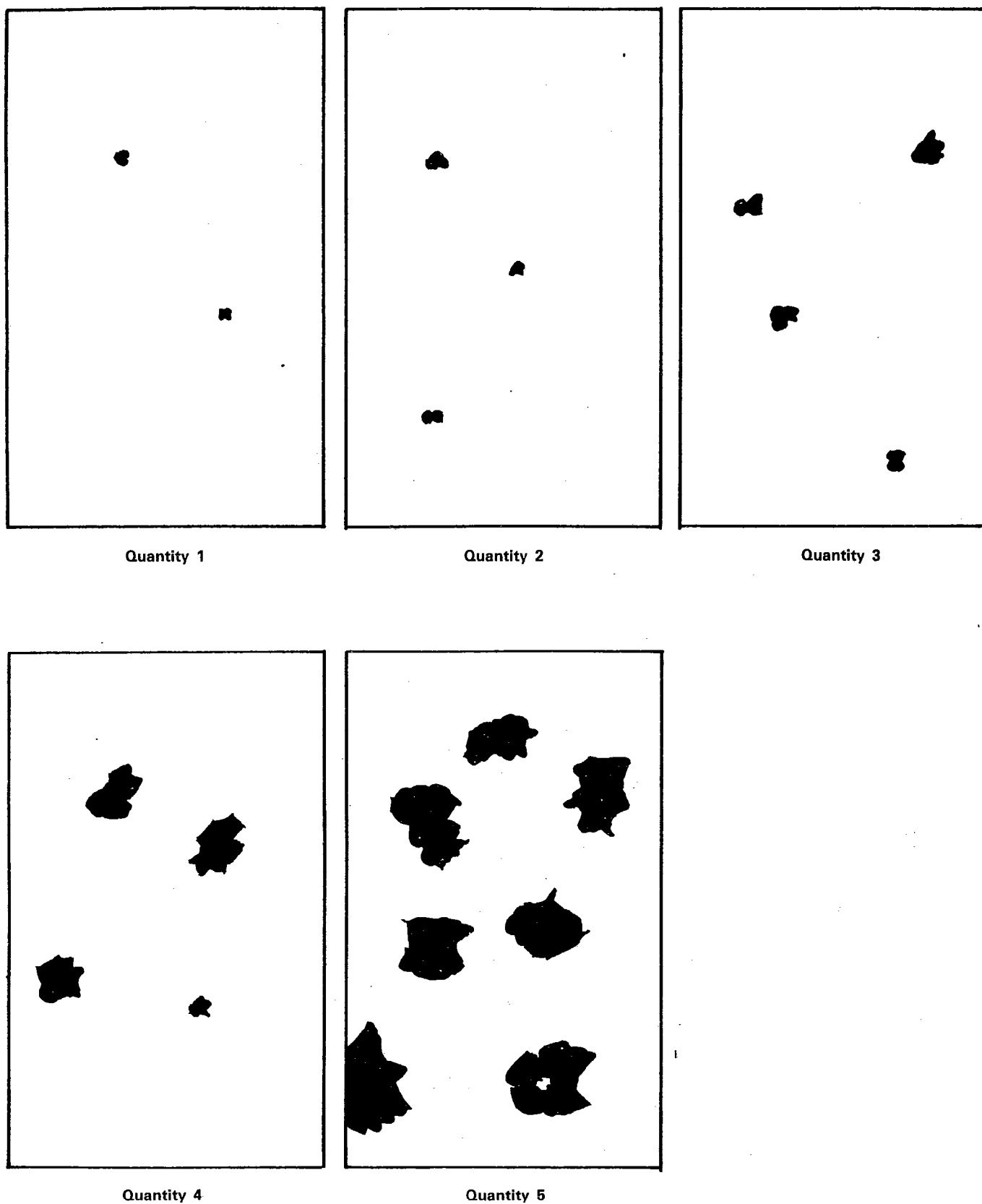
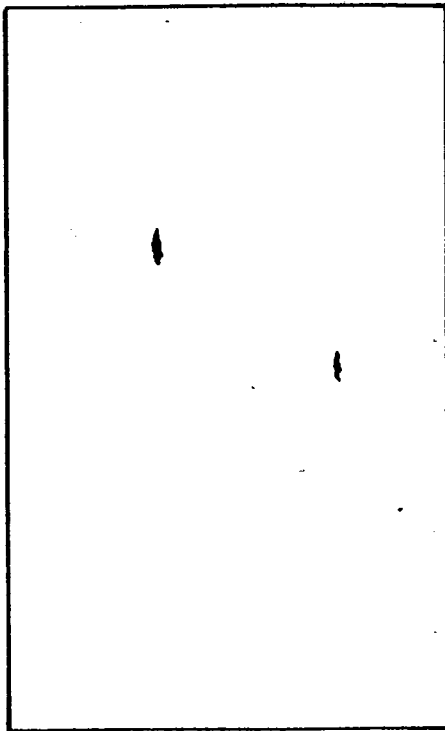
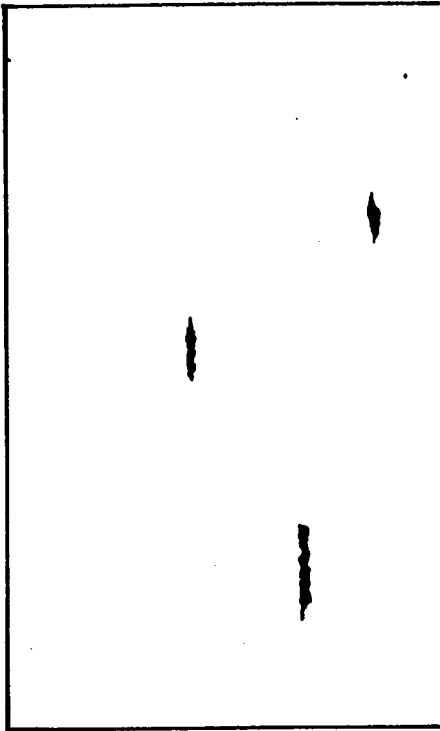


Figure 1 — Flaking without any preferential direction

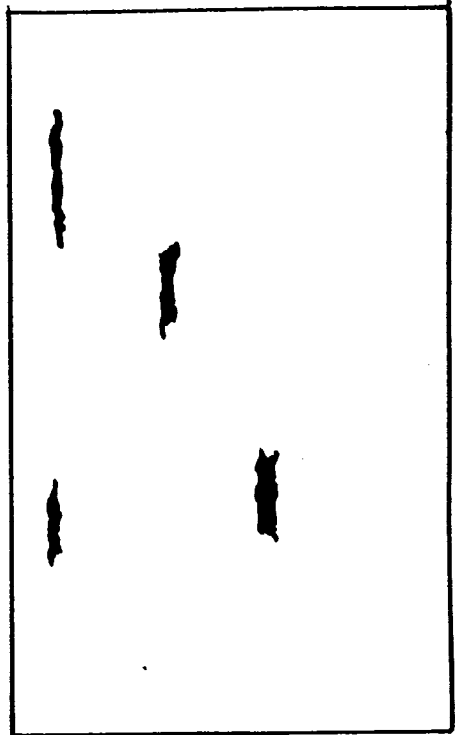
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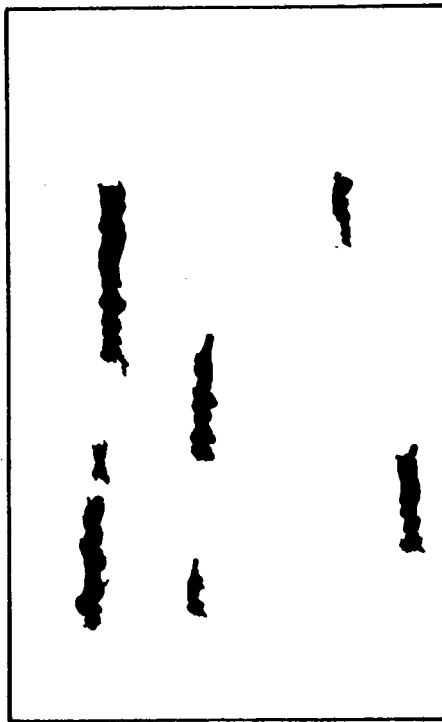
Quantity 1



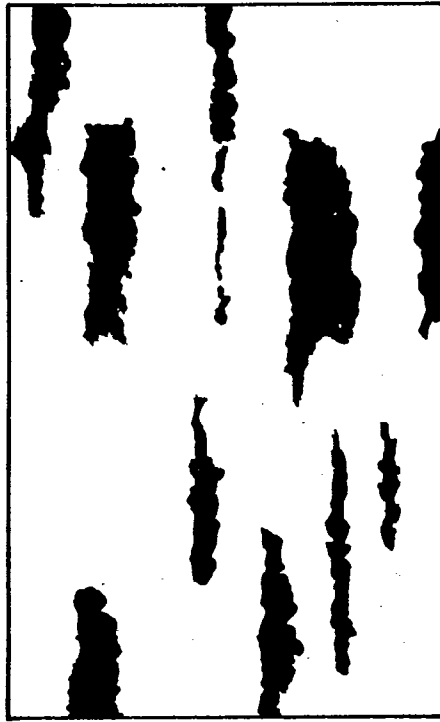
Quantity 2



Quantity 3



Quantity 4



Quantity 5

Figure 2 — Flaking with one preferential direction