

ISO 3613:2021 (E)

Metallic and other inorganic coatings — Chromate conversion coatings on zinc, cadmium, aluminium-zinc alloys and zinc-aluminium alloys — Test methods

Contents

	Foreword
	Introduction
1	Scope
2	Normative references
3	Terms and definitions
4	Reagents
5	Apparatus
6	Test methods
6.1	General
6.2	Test for the presence of a colourless chromate coating on zinc
6.3	Test for the presence of a colourless chromate coating on zinc and cadmium
6.4	Test for the presence of a colourless chromate coating on zinc-aluminium (mass fraction of aluminium: 5 %) alloys
6.5	Test for the presence of hexavalent chromium in both colourless and coloured chromate coatings
6.5.1	General
6.5.2	Test method employing test solution C 1
6.5.3	Test method employing alternative test solution C 2 (destructive)
6.5.4	Expression of results
6.5.5	Calibration of spectrophotometer
6.6	Determination of hexavalent chromium content of coloured chromate coatings
6.6.1	Preparation of calibration graph
6.6.2	Blank test
6.6.3	Determination
6.6.4	Expression of results
6.7	Determination of total chromium content of coloured chromate coatings
6.7.1	Preparation of calibration graph
6.7.2	Blank test
6.7.3	Determination
6.7.4	Expression of results
6.8	Determination of mass per unit area of both colourless and coloured chromate coatings by gravimetric method
6.9	Test for adhesion by abrasion
6.10	Quality evaluation test of chromate layers on zinc and cadmium surfaces
7	Test report