INTERNATIONAL STANDARD 1461

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

Metallic coatings — Hot dip galvanized coatings on fabricated ferrous products — Requirements

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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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these dosuments are now in the process of being transformed into International Standards. As part of this process, International Standard ISO 1461 replaces ISO Recommendation R 1461-1970 drawn up by Technical Committee ISO/TC 107, *Metallic and other non-organic coatings*.

The Member Bodies of the following countries approved the Recommendation :

Australia
Belgium
Chile
Czechoslovakia
Egypt, Arab Rep. of
Finland
France
Germany
Hungary
India
Iran
Israel
Italy
Norway
Poland
Portugal
South Africa, Rep. of
Spain
Sweden
Switzerland
Thailand
Turkey
United Kingdom

The Member Bodies of the following countries expressed disapproval of the Recommendation on technical grounds :

Netherlands
New Zealand

Printed in Switzerland

Metallic coatings — Hot dip galvanized coatings on fabricated ferrous products — Requirements

1 SCOPE AND FIELD OF APPLICATION

This International Standard relates to hot dip galvanized coatings on structural steel, steel structures, steel sheet fabrications, assemblies of tubes, large tubes already bent or welded before galvanizing, containers, wire-work fabricated from uncoated steel wire, small articles processed in bulk, steel castings, steel forgings, steel stampings, iron castings and similar products.

This International Standard is valid only for general hot dip galvanizing and does not apply to semi-finished products such as wire, tube or sheet.

2 REFERENCES

ISO 1459, *Metallic coatings — Protection against corrosion by hot dip galvanizing — Guiding principles.*

ISO 1460, *Metallic coatings — Hot dip galvanized coatings on ferrous materials — Determination of the mass per unit area — Gravimetric method.*

3 GENERAL REMARKS

Castings shall be as free as possible from surface porosity and shrinkage holes and, unless already clean, shall be cleaned by shot blasting, electrolytic pickling or other methods specially suitable for castings.

The hot dip galvanizer shall not be held responsible for changes in mechanical properties of the basis material as a result of hot dip galvanizing.

When it is necessary to bore vent holes in products to prevent explosions during hot dip galvanizing, this shall be done by the purchaser or, after the written consent of the purchaser, by the hot dip galvanizer. The purchaser is strongly recommended to seek the advice of the hot dip galvanizer before designing or making a product which is subsequently to be hot dip galvanized.

After solidification, remelting of parts of the coating by gas torches or other means shall be allowed. With small articles processed in bulk, the number of articles sticking together after cooling shall not exceed 2 % of the total. Threads may only be required to fit after hot dip galvanizing if a suitable allowance has been made for the coating in making the thread.

Oversize tapping or retapping of nuts and tapped holes is required when the bolt or male thread is hot dip galvanized. Although tapping or retapping after hot dip galvanizing results in an uncoated female thread, the coating on the engaged male thread will retard corrosion of both components. Male threads shall not be rethreaded after hot dip galvanizing.

4 SAMPLING

The method of sampling shall be agreed between the interested parties.

5 ADHESION OF THE COATING

The coating shall be sufficiently adherent to withstand handling consistent with the normal use of the article without peeling or flaking.

6 MASS OF COATING

The mass of the coating per square metre of the surface (one side only) shall comply with both the minimum average and the minimum individual sample coating requirements in the following Table unless a greater or a smaller mass of coating has been agreed beforehand between the interested parties. Products not mentioned in the Table shall be the subject of agreement between the interested parties.