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DRAFT INDIAN STANDARD IN WIDE CIRCULATION

Reference : T-79

Date: 21 October 2024

TECHNICAL COMMITTEE : Corrosion Protection and Finishes Sectional Committee, MTD 24

To,

All concerned

Dear Madam/Sir,

The following document has been prepared by the Corrosion Protection and Finishes Sectional Committee Sectional Committee, MTD 24. Please <u>click here</u> to view the document.

Document Number : MTD 24 (25798) WC Title of the document : Code of Practice for Process Design Testing and Application of Hot Dip Galvanizing of Iron and Steel - Part 1 : Batch Process Document Type : Revision of Indian Standard (IS 2629 : 1985)

This document has following salient features which may require specific attention for your valuable comments:

 Hot-dip galvanizing is an age-old, proven, and established process of applying zinc coating to iron or steel surface for protection against corrosion. The zinc coating firstly protects the base metal by acting as a barrier between the metal and the atmosphere and secondly affords sacrificial protection through its anodic capability, even when moderately sized areas of the base metal surface are exposed. When an oxide and dirt-free article is immersed in a galvanizing bath, the metal surface reacts with molten zinc to form a surface layer consisting of pure zinc & intermediate layers of zinc-iron alloy considered to be harder than the base steel. As the article is withdrawn from the bath, it picks up pure zinc which solidifies on cooling and forms the outer layer consisting of pure zinc. The intermediate zinc-iron alloy layers provide a strong bond between the ferrous base material along with zinc and resists corrosion and abrasion.
The protection afforded by the hot dip galvanized coating to the article will depend upon the method of application of the coating, the design of the article, chemical composition of the article and the specific environment to which the article is exposed to. It is essential that the design of any article required to be galvanized should consider not only the function of the article and its method of manufacture, but also the limitations imposed by the finish. The requirement of general design affording optimal protection of zinc coating is detailed in this revised & updated specification. The galvanizing process can be grouped together under three categories, namely (a) wet process, (b) dry process, and (c) a combination of dry and wet process by batch galvanizing.

3) A summary of design requirement, environmental factors & defects, along with the typical photographs for illustration, commonly met with in the hot-dip galvanizing practice, their causes and remedial measures are given in Annex A. In this annex, the information given in the last column aids inspectors & users in interpreting the appearance and tests of the article to help them in arriving at a correct decision for accepting or rejecting the finished material. This standard is also crucial for industries involved in construction, transportation, infrastructure, and manufacturing where iron and steel structures are exposed to environmental conditions that can attribute to corrosion. By following the guidelines provided, organizations can design, specify, and maintain the durability, performance and coating quality of iron and steel structures.

Please examine the document and share your comments regarding further improvement in the document.

Last date for sharing the comments is : 22 November 2024

The comments should be shared in the prescribed template through this portal only; and the comments so received shall be taken up by the Sectional Committee for necessary action. For any other query, please write an email at mtd@bis.gov.in to the undersigned at Bureau of Indian Standard, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi.

In case no comments are received, we would presume your approval of the documents. However, in case we receive any comments on the document, the same shall be put up to the Sectional Committee for necessary action.

Thanking You,

Yours faithfully, (SANJIV MAINI) Head (Metallurgical Engineering Department) Email: mtd@bis.gov.in ×

व्यापक परिचालन में मसौदा(दे)

हमारा सन्दर्भ : T-79

दिनांक : 21-10-2024

तकनीकी समिति : Corrosion Protection and Finishes Sectional Committee Sectional Committee, MTD 24

प्राप्तकर्ता : रूचि रखने वाले सभी निकाय

महोदय/या,

निम्नलिखित मसौदा तैयार किया गया है :

प्रलेख संख्या : MTD 24 (25798) WC शीर्षक :

कृपया इस/इन मानक(को)/संसोधन(नो) के मसौदे(दो) का अवलोकन करें और अपनी सम्मतियाँ यह बताते हुए भेजें कि यदि ये मानक(को) के संशोधन(नो) के रूप में प्रकाशित हो तो इन पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयां आ सकती हैं।

सम्मत्तियाँ भेजने की अंतिम तिथि : 22 November 2024

सम्मतियाँ, यदि कोई हों तो, कृपया यहाँ क्लिक करके ऑनलाइन पोर्टल के माध्यम से ऊपर दी गयी अंतिम तिथि तक दर्ज कराएं।

यह/ये प्रलेख भारतीय मानक ब्यूरो की वेबसाइट <u>www.bis.gov.in</u> पर भी उपलब्ध है/हैं।

धन्यवाद |

भवदीय/भवदिया,

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