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Document History

2022-06-30. Revised by AMPP Standards Committee (SC) 13 Corrosion Monitoring and Measurement

2012-25-09: Revised by SSPC C.4.2, Performance Evaluation of Coatings

AMPP values your input. To provide feedback on this standard, please contact: standards@ampp.org

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Foreword

Test panels containing coating/lining systems are frequently scribed with one or two incisions through the protective system to simulate mechanical damage when in service, and to evaluate the ability of the coating/lining system to resist undercutting corrosion at the intentional scribes. Consistent evaluation of undercutting resistance properties is critical to comparing the relative performance of corrosion protection systems. Facility owners, coating manufacturers, and testing laboratories benefit from this standard procedure that describes how to measure undercutting and report the data.

Scope

This standard allows the user to determine average and observed maximum undercutting values, as well as the frequency of the maximum undercutting on coated steel test panels scribed in accordance with Section 6 of ASTM D1654 using parallel, 100 mm (~4 in) scribes. The standard includes requirements for data collection, analysis, and reporting.

This standard is applicable for evaluation of most types of protective coatings for use on steel. This standard is not applicable to evaluation of thermal sprayed metals and ceramic coatings, hot-dip and electro-coated metal coatings, and tapes.

Rationale

SSPC-PA 16 was revised to provide greater clarity in data acquisition, computing, and reporting. ASTM D7087 was withdrawn in 2019 with no replacement standard. Further, there was no method of reporting the maximum rust creepage and the frequency that the observed maximum was occurring along the scribe line. Simply reporting the observed maximum undercutting value of multiple zone measurements does not provide any indication of overall coating performance at the intentional scribe line.

Referenced Standards

The latest edition, revision, or amendment of the referenced standards in effect shall govern unless otherwise dated.

ASTM, www.astm.org*:*

ASTM D1654	Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments

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