

ISO 16701:2025-06 (E)

Corrosion of metals and alloys - Corrosion in artificial atmosphere - Accelerated corrosion test involving exposure under controlled conditions of humidity cycling and intermittent spraying of a salt solution

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Apparatus	2
4.1	General	2
4.2	Basic properties of the climate test chamber	3
4.3	Supporting requisites and accessories	3
5	Test method	4
5.1	Test exposure conditions	4
5.2	Requirements on salt solution	10
5.3	Precipitation rate of salt solution	10
5.4	Start and end time of test	11
5.5	Duration of test	11
6	Test object conditions	11
6.1	Requirements on geometry and distribution	11
6.1.1	Test object orientation	11
6.1.2	Distribution of test objects	11
6.1.3	Mass and total exposed surface of test objects	11
6.1.4	Test object support	12
6.1.5	Test object exposure to salt spray	12
6.2	Test object preparation	13
6.2.1	Painted and scribed panels	13
6.2.2	Other test object geometries	13
6.2.3	Additional test conditions	13
7	Requirements on quality control and calibration	13
7.1	Overview	13
7.2	Climate control and calibration procedures	14
7.2.1	Definition of a climate deviation	14
7.2.2	Control procedure for basic compliance of test chamber	15
7.3	Control of salt solution precipitation	16
7.3.1	General	16
7.3.2	Spray rack according to the example in Annex B	16
7.3.3	Other configurations for salt solution downfall	17
7.3.4	Visual control of spray patterns	17
7.4	Recommended schedule for quality control	18
7.4.1	Control before test start	18
7.4.2	Workday inspection	18
7.4.3	Weekly inspection	18
7.4.4	Six-month controls	18
7.4.5	Annual calibration and verification	18
7.5	Deviation handling	19
7.5.1	General	19
7.5.2	Test interruption	19

8	Evaluation of results	19
9	Test report	19
Annex A (normative)	Requirements on test equipment	21
Annex B (informative)	Example of a device for spraying a precipitation of salt solution	25
Annex C (informative)	Guidelines on devices for independent, stand-alone temperature and humidity monitoring	26
Annex D (normative)	Temperature/humidity control procedures	27
Annex E (informative)	Guiding information about the test method	30
	Bibliography	38