

ACA Standards Update

Welcome to the corrosion related standards report for August 2019.

The standards reporting for 2019 is scheduled against specific interests and as indicated below:

Issue 2019 Standards search for Specific interests

February	Oil & Gas
May	Water & Wastewater
August	Concrete & CP
November	Asset Management / Coatings

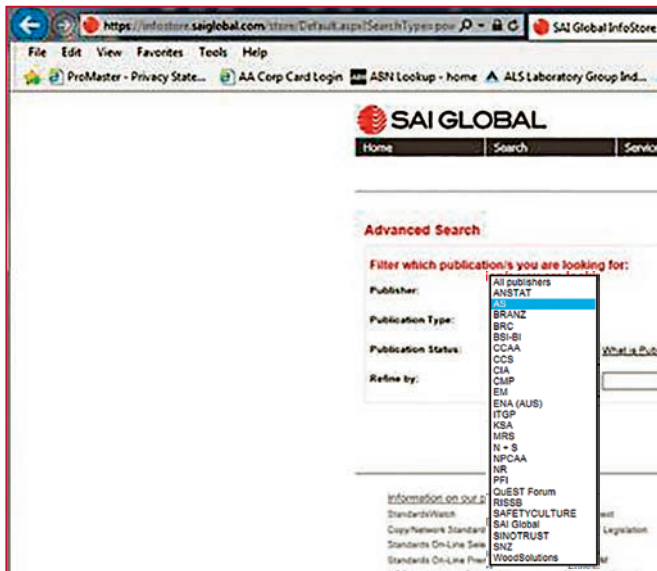
This Standards report focuses on **Concrete & CP** in relation to corrosion.

As previously this is in two stages, namely:

1. A global standards and publication focus at 10 July 2019, searching through SAIGLOBAL Publications at <https://infostore.saiglobal.com/store>, for all current publications and standards relating to corrosion and its prevention for the topics Concrete and CP.

these results are shown in Tables 1.

2. Previously I was able to search across all standards for publications after a set date in SAI Global 'advanced search' but changes to the SAI Global Website has prevented this type of search across all standards; the site is only available for the following standards list;



for the previous edition I had many communications with SAI Global and I have not been able to resolve the issue, and SAI Global has not resolved it either. To carry out searches on the below topics, I used the general search and visually looked at 2019 publications and then checked them for those published after 6 April 2019.

Publishers searched; ACI, API, AS, ASME, ASTM, CIA, ISO, NACE NORSEK with 2019 publications selected; the specific search for publications after 1 January 2019 - 5 April 2019; the key word groups are:

- 'durability and corrosion'.
- 'corrosion' or 'corrosivity' or 'corrosive'; but not 'anodizing' or 'anodize(d)'.
- 'paint' or 'coating'; but not 'anodizing' or 'anodize(d)'.
- 'galvanize' or 'galvanized' or galvanizing'.
- 'electrochemical' or 'electrolysis' or 'electroplated'.
- 'cathode' or 'cathodic'.
- 'anode' or 'anodic'.
- 'corrosion' and 'concrete' or 'concrete' and 'coatings'.

these results are shown in Table 2.

Summary

SAI Global site exhibited a very minimal set of publishers for advanced search where complex search algorithms could be used; thus, a general search was used.

1. Through SAIGLOBAL Publications on 10 July 2019, for current search at <https://infostore.saiglobal.com/store> there were:
 - a. 174 citations relevant to 'Concrete and Corrosion' and a selection of these (15 PN, 11 ASTM, 11 NACE, 7 BS EN, 7 DIN, 4 ACI and 1 each from BRANZ, ISO and SSPC) are shown in Table 1 a for 'Concrete and CP'.
 - b. 507 current citations relevant to 'Cathodic Protection', 34 NACE, 33 BS EN, 33 DIN, 27 ISO, 8 AS NZS (4 referenced in Australian Legislation and Codes of Practice), 4 ASTM, 4 AWWA, 2 API, 1 ABS, 1 ENA, 1 ITU and 1 ULC listed in Table 1b below. It was noted that BS EN, DIN and ISO had many, but not all, shared standards
2. Across SAIGLOBAL online Standards Publications there was a total of 13 Citations found that were issued from 6 April 2019 - 10 July 2019, with no AS publications. there were 5 ASTM, 1 GOST, 4 DIN, 1 SS EN ISO, 1 UNI EN and 1 BS ISO. these new standards were in the areas of Galvanizing, Electrochemical and Anodizing.

The full search results are shown in Table 1b for 'CP (Cathodic Protection)' results

Regards
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Stage 1 Report on SAIGLOBAL Publications at <https://infostore.saiglobal.com/store>, for all current publications and standards relating to concrete and corrosion' and 'CP'.

A search for 'concrete and corrosion' produced 174 current citations, 15 PN, 11 ASTM, 11 NACE, 7 BS EN, 7 Din, 4 American Concrete institute and 1 each from BRANZ, ISO and SSPC; these are in Table 1a below.

A search for 'Cathodic Protection' produced 507 current citations, 34 NACE, 33 BS EN, 33 Din, 27 ISO, 8 AS NZS (4 referenced in Australian Legislation and Codes of Practice; AS 2832.2-2003 (R2016), AS 2832.3-2005 (R2016), AS 2832.4-2006 (R2016) and AS 2832.5-2008 (R2018)), 4 ASTM, 4 AWWA, 2 API, 1 ABS, 1 ENA, 1 ITU and 1 ULC listed in Table 1b below. It was noted that BS EN, Din and ISO had many, but not all, shared standards.

Table 1a for 'Concrete and Corrosion' results

PN	ASTM	NACE
PN 86/B-01802:1986 Protection Against Corrosion in Building – Concrete and Reinforced Concrete Structures – Terms and Definitions	ASTM STP1065-90 Corrosion Rates of Steel in Concrete	NACE 01110:2010 Stray-Current-induced Corrosion in Reinforced and Prestressed Concrete Structures
PN 86/B-01810:1986 Protection Against Corrosion in Building – Protective Properties of Concrete Referring to Reinforcing Steel – Electrochemical Tests	ASTM STP1276-96 Techniques to Assess the Corrosion Activity of Steel Reinforced Concrete Structures	NACE 05107:2007 Report on Corrosion Probes in Soil or Concrete
PN 86/B-01811:1986 Protection Against Corrosion in Building – Concrete and Reinforced Concrete Structures – Material and Structural Protection – Specifications	ASTM STP629-77 Chloride Corrosion of Steel in Concrete	NACE 21428:2018 Corrosion inhibiting Admixtures for Reinforced Concrete—A State of the Art Report
PN 88/B-01807:1988 Protection Against Corrosion in Building – Concrete and Reinforced Concrete Structures – Principles of Diagnostics for Structures	ASTM STP713-80 Corrosion of Reinforcing Steel in Concrete	NACE SP 01 12:2017 Corrosion Management of Atmospherically Exposed Reinforced Concrete Structures
PN EN 14879-3:2008 organic Coating Systems and Linings for Protection of industrial Apparatus and Plants Against Corrosion Caused by Aggressive Media – Part 3: Coatings on Concrete Components	ASTM STP818-83 Corrosion of Metals in Association With Concrete	NACE SP 01 12:2012 (Superseded) Corrosion Management of Atmospherically Exposed Reinforced Concrete Structures
PN EN 14879-5:2009 organic Coating Systems and Linings for Protection of industrial Apparatus and Plants Against Corrosion Caused by Aggressive Media – Part 5: Linings on Concrete Components	ASTM STP906-86 Corrosion Effect of Stray Currents and the Techniques for Evaluating Corrosion of Rebars in Concrete	NACE SP 01 87:2017 Design for Corrosion Control of Reinforcing Steel in Concrete
PN EN 1504-7:2007 Products and Systems for the Protection and Repair of Concrete Structures – Definitions, Requirements, Quality Control and Evaluation of Conformity – Part 7: Reinforcement Corrosion Protection	ASTM C1582/C1582M-11 Standard Specification for Admixtures to inhibit Chloride-induced Corrosion of Reinforcing Steel in Concrete	NACE SP 01 87:2008 (Superseded) Design Considerations for Corrosion Control of Reinforcing Steel in Concrete
PN EN 15183:2007 Products and Systems for the Protection and Repair of Concrete Structures – Test Methods – Corrosion Protection Test	ASTM C1582/C1582M-11(2017)e1 Standard Specification for Admixtures to inhibit Chloride-induced Corrosion of Reinforcing Steel in Concrete	NACE SP21427:2019 Detection and Mitigation of Stray-Current Corrosion of Reinforced and Prestressed Concrete Structures
PN EN 15361:2007 Determination of the influence of the Corrosion Protection Coating on the Anchorage Capacity of the Transverse Anchorage Bars in Prefabricated Reinforced Components of Autoclaved Aerated Concrete	ASTM C876-15 Standard Test Method for Corrosion Potentials of Uncoated Reinforcing Steel in Concrete	NACE SP 03 90:2009 Maintenance and Rehabilitation Considerations for Corrosion Control of Atmospherically Exposed Existing Steel-reinforced Concrete Structures
PN EN 480-14:2008 Admixtures for Concrete, Mortar and Grout – Test Methods – Part 14: Determination of the Effect on Corrosion Susceptibility of Reinforcing Steel by Potentiostatic Electro-chemical Test	ASTM G109-07(2013) Standard Test Method for Determining Effects of Chemical Admixtures on Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments	NACE SP 03 08:2008 inspection Methods for Corrosion Evaluation of Conventionally Reinforced Concrete Structures

PN 88/B-01808:1988 Protection Against Corrosion in Building – the Principles of the Determination of Scars in the Coatings Protecting Steel and Reinforced Concrete Structures	ASTM G180-13 Standard Test Method for Corrosion Inhibiting Admixtures for Steel in Concrete by Polarization Resistance in Cementitious Slurries	NACE SP 01 00:2014 Cathodic Protection to Control External Corrosion of Concrete Pressure Pipelines and Mortar-Coated Steel Pipelines for Water or Waste Water
PN 91/B-01813:1991 Protection Against Corrosion in Building – Concrete and Reinforced Concrete Structures – Superficial Protective Measures – Principles and Choice	BSI (BS EN)	Din
	BS EN 990:2002 Test Methods for Verification of Corrosion Protection of Reinforcement in Autoclaved Aerated Concrete and Lightweight Aggregate Concrete With Open Structure	Din EN 990 (2003-01) Test methods for verification of corrosion protection of reinforcement in autoclaved aerated concrete and lightweight aggregate concrete with open structure
PN 92/B-01814:1992 Protection Against Corrosion in Building – Concrete and Reinforced Concrete Structures – Test Method for Adherence Protective Coatings	BS EN 14879-3:2006 organic coating systems and linings for protection of industrial apparatus and plants against corrosion caused by aggressive media. Coatings on concrete components	Din EN 14879-3 (2007-02) organic coating systems and linings for protection of industrial apparatus and plants against corrosion caused by aggressive media – Part 3: Coatings on concrete components
PN 92/B-01815:1992 Protection Against Corrosion in Building – Concrete and Reinforced Concrete Structures – Test Methods for Water Vapour Permeability of Protective Coatings	BS EN 14879-5:2007 organic coating systems and linings for protection of industrial apparatus and plants against corrosion caused by aggressive media. Linings on concrete components	Din EN 14879-5 (2007-10) organic coating systems and linings for protection of industrial apparatus and plants against corrosion caused by aggressive media – Part 5: Linings on concrete components
PN EN 990:2004 Test Methods for Verification of Corrosion Protection of Reinforcement in Autoclaved Aerated Concrete and Lightweight Aggregate Concrete with	BS EN 1504-7:2006 Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. Reinforcement corrosion protection	Din EN 1504-7 (2006-11) Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 7: Reinforcement corrosion protection
ISO	BS EN 15183:2006 Products and systems for the protection and repair of concrete structures. Test methods. Corrosion protection test	Din EN 15183 (2006-11) Products and systems for the protection and repair of concrete structures – Test methods – Corrosion protection test
ISO/DIS 21062 Corrosion of Metals and Alloys -Determination of Corrosion Rates of the Embedded Steel Reinforcement in Concrete Exposed to the Simulated Marine Environments		
SSPC	BS EN 15361:2007 Determination of the influence of the Corrosion Protection Coating on the Anchorage Capacity of the Transverse Anchorage Bars in Prefabricated Reinforced Components of Autoclaved Aerated Concrete	Din EN 15361 (2007-06) Determination of the influence of the corrosion protection coating on the anchorage capacity of the transverse anchorage bars in prefabricated reinforced components of autoclaved aerated concrete
SSPC-QP 6:2010 Standard Procedure for Evaluating the Qualifications of Contractors Who Apply thermal Spray (Metallizing) for Corrosion Protection of Steel and Concrete Structures		
BRANZ	BS EN 480-14:2006 Admixtures for concrete, mortar and grout. Test methods. Determination of the effect on corrosion susceptibility of reinforcing steel by potentiostatic electro-chemical test	Din EN 480-14 (2007-03) Admixtures for concrete, mortar and grout – Test methods – Part 14: Determination of the effect on corrosion susceptibility of reinforcing steel by potentiostatic electro-chemical test
BRANZ Bulletin 464 BRANZ Preventing Corrosion of Reinforcing Steel in Concrete		
ACI	ACI 222.3R:2011 Guide to Design and Construction Practices to Mitigate Corrosion of Reinforcement in Concrete Structures	ACI SP 291 CD:2013 Corrosion of Reinforcing Steel in Concrete - Future Direction: Proceedings - Hope & Schupack Corrosion Symposium Cd
ACI 222R:2001 (R2010) Protection of Metals in Concrete Against Corrosion	ACI C 25:1993 (Withdrawn) Concrete Durability: Corrosion Protection	

Table 1b for 'CP (Cathodic Protection)' results

NACE	NACE 01102:2018 State-of-the-Art Report: Criteria for Cathodic Protection of Prestressed Concrete Structures	NACE 01102:2002 (Superseded) State-of-the-art Report: Criteria for Cathodic Protection of Prestressed Concrete Structures
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NACE 01105:2005 Sacrificial Cathodic Protection of Reinforced Concrete Elements - A State-of-the-art-report	NACE 01116:2016 State-of-the-Art Report on Evaluating Cathodic Protection Systems on Existing Reinforced Concrete Structures	NACE 01210:2010 Cathodic Protection for Masonry Buildings incorporating Structural Steel Frames
TM0497:2018 Sg Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems	NACE 10A392:2006 Effectiveness of Cathodic Protection on thermally insulated Underground Metallic Structures	NACE 1E100:2012 Engineering Symbols Related to Cathodic Protection
NACE 30105:2005 Electrical Isolation/continuity and Coating Issues for offshore Pipeline Cathodic Protection Systems	NACE 6A100:2000 (Withdrawn) Coatings Used in Conjunction With Cathodic Protection	NACE 7L192:2009 Cathodic Protection Design Considerations for Deep Water Projects
NACE 7L198:2009 Design of Galvanic Anode Cathodic Protection Systems for offshore Structures	NACE RP 01 93:2001 (Superseded) External Cathodic Protection of on-Grade Carbon Steel Storage Tank Bottoms	NACE SP 01 04:2004 (R2014) the Use of Coupons for Cathodic Protection Monitoring Applications
NACE SP 01 86:1986 (R2007) Application of Cathodic Protection for External Surfaces of Steel Well Casings	NACE SP 01 93:2016 External Cathodic Protection of on-Grade Carbon Steel Storage Tank Bottoms	NACE SP 01 96:2015 Galvanic Anode Cathodic Protection of internal Submerged Surfaces of Steel Water Storage Tanks
NACE SP 01 96:2011 (Superseded) Galvanic Anode Cathodic Protection of internal Submerged Surfaces of Steel Water Storage Tanks	NACE SP 02 16:2016 Sacrificial Cathodic Protection of Reinforcing Steel in Atmospherically Exposed Concrete Structures	NACE SP 02 85:2011 External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection
NACE SP 02 90:2000 (R2007) Impressed Current Cathodic Protection of Reinforcing Steel in Atmospherically Exposed Concrete Structures	NACE SP 03 88:2001 (R2014) Impressed Current Cathodic Protection of internal Submerged Surfaces of Carbon Steel Water Storage Tanks	NACE SP 04 08:2014 Cathodic Protection of Reinforcing Steel in Buried or Submerged Concrete Structures
NACE SP 05 75:1995 (R2007) internal Cathodic Protection (cp) Systems in Oil-treating Vessels	NACE SP 06 07:2007 Petroleum and Natural Gas industries - Cathodic Protection of Pipeline	NACE SP0388:2018 Impressed Current Cathodic Protection of internal Submerged Surfaces of Carbon Steel Water Storage Tanks
NACE TM 01 01:2012 Measurement Techniques Related to Criteria for Cathodic Protection of Underground Storage Tank Systems	NACE TM 01 15:2015 Cathodic Disbondment Test for Coated Steel Structures Under Cathodic Protection	NACE TM 04 97:2012 Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems
NACE SP 01 15:2015 Petroleum, Petrochemical and Natural Gas industries - Cathodic Protection of Pipeline Transportation Systems - Part 2: offshore Pipelines	NACE SP 01 00:2014 Cathodic Protection to Control External Corrosion of Concrete Pressure Pipelines and Mortar-Coated Steel Pipelines for Water or Waste Water Service	NACE TM 02 94:2016 Testing of Embeddable Impressed Current Anodes for Use in Cathodic Protection of Atmospherically Exposed Steel-Reinforced Concrete
NACE TM 02 94:2015 (Superseded) Testing of Embeddable Impressed Current Anodes for Use in Cathodic Protection of Atmospherically Exposed Steel-Reinforced Concrete	NACE TM 02 94:2007 (Superseded) Testing of Embeddable Impressed Current Anodes for Use in Cathodic Protection of Atmospherically Exposed Steel-reinforced Concrete	
BS EN	BS EN 12474:2001 Cathodic protection for submarine pipelines	BS EN ISO 13174:2012 Cathodic protection of harbour installations
BS EN 13509:2003 Cathodic protection measurement techniques	BS EN 14505:2005 Cathodic protection of complex structures	BS EN 16222:2012 Cathodic protection of ship hulls
BS EN 12068:1999 Cathodic protection. External organic coatings for the corrosion protection of buried or immersed steel pipelines used in conjunction with cathodic protection. Tapes and shrinkable materials	14/30271613 DC (Superseded) BS ISO 15257 - Cathodic Protection - Competence Levels of Cathodic Protection Persons - Basis for Certification Scheme	BS EN ISO 15257:2017 Cathodic Protection - Competence Levels of Cathodic Protection Persons - Basis for Certification Scheme (ISO 15257:2017)
BS EN 15257:2006 (Superseded) Cathodic Protection - Competence Levels and Certification of Cathodic Protection Personnel	17/30319994 DC (Superseded) BS ISO 20313 - Ships and Marine Technology - Cathodic Protection of Ships	18/30361537 DC BS ISO 22426. Assessment of the Effectiveness of Cathodic Protection Based on Coupon Measurements

18/30384187 DC BS EN 12954. General Principles of Cathodic Protection of Buried or Immersed onshore Metallic Structures	10/30234726 DC BS EN 12496. Galvanic anodes for cathodic protection in seawater and saline mud	96/210804 DC En 12496 Sacrificial Anodes for Cathodic Protection in Sea Water
BS EN 12473:2014 General Principles of Cathodic Protection in Seawater	BS EN 12495:2000 Cathodic protection for fixed steel offshore structures	BS EN 12499:2003 internal cathodic protection of metallic structures
BS EN ISO 12696:2016 Cathodic Protection of Steel in Concrete (ISO 12696:2016)	BS EN ISO 12696:2012 (Superseded) Cathodic protection of steel in concrete	BS EN 13173:2001 Cathodic protection for steel offshore floating structures
BS EN 13636:2004 Cathodic Protection of Buried Metallic Tanks and Related Piping	BS EN 15112:2006 External cathodic protection of well casing	BS EN 12496:2013 Galvanic Anodes for Cathodic Protection in Seawater and Saline Mud
BS EN 12954:2001 Cathodic protection of buried or immersed metallic structures. General principles and application for pipelines	15/30314907 DC BS ISO 12473 - General Principles of Cathodic Protection in Seawater	BS EN ISO 15589-1:2017 Petroleum, Petrochemical and Natural Gas industries - Cathodic Protection of Pipeline Systems - Part 1: on-Land Pipelines (Iso 15589-1:2015)
BS ISO 15589-1:2015 (Superseded) Petroleum, Petrochemical and Natural Gas industries - Cathodic Protection of Pipeline Systems - Part 1: on-Land Pipelines	BS EN ISO 15589-2:2014 Petroleum, Petrochemical and Natural Gas industries - Cathodic Protection of Pipeline Transportation Systems - Part 2: offshore Pipelines	BS EN 16299:2013 Cathodic Protection of External Surfaces of Above Ground Storage Tank Bases in Contact With Soil or Foundations
17/30346281 DC BS EN 12954 - General Principles of Cathodic Protection of Buried or Immersed onshore Metallic Structures	18/30356445 DC BS EN 17243. Cathodic Protection of internal Surfaces of Metallic Tanks, Structures, Equipment, and Piping Containing Seawater	17/30326545 DC BS ISO 19097-1 - Accelerated Life Test Method of Mixed Metal Oxide Anodes for Cathodic Protection - Part 1: Application in Concrete
17/30326548 DC BS ISO 19097-2 - Accelerated Life Test Method of Mixed Metal Oxide Anodes for Cathodic Protection - Part 2: Application in Soils and Natural Waters		
DIN	Din EN ISO 15257 (2017-09) Cathodic protection - Competence levels of cathodic protection persons - Basis for a certification scheme (ISO 15257:2017)	Din EN 13509 (2003-09) Cathodic protection measurement techniques
Din EN 14505 (2005-07) Cathodic protection of complex structures	Din EN 15257 (2007-03) (Withdrawn) Cathodic protection - Competence levels and certification of cathodic protection personnel	Din EN 12496 (2014-02) Galvanic anodes for cathodic protection in seawater and saline mud
Din EN 12499 Berichtigung 1 (2006-08) internal cathodic protection of metallic structures, Corrigenda to Din EN 12499:2003-07	Din EN ISO 12696 (2017-05) Cathodic protection of steel in concrete (ISO 12696:2016)	Din EN ISO 13174 (2013-05) Cathodic protection of harbour installations (ISO 13174:2012)
Din EN 16222 (2012-12) Cathodic protection of ship hulls	Din EN 12473 (2014-07) General principles of cathodic protection in seawater	Din EN 12474 (2001-12) (Withdrawn) Cathodic protection for submarine pipelines; English version of Din EN 12474
Din EN 12495 (2000-04) Cathodic protection for fixed steel offshore structures; English version of Din EN 12495	Din EN 12499 (2003-07) internal cathodic protection of metallic structures	Din EN 13173 (2001-07) Cathodic protection for steel offshore floating structures; English version of Din EN 13173
Din EN 13636 (2004-10) Cathodic protection of buried metallic tanks and related piping	Din EN 15112 (2006-10) External cathodic protection of well casings	Din EN ISO 15257 (2016-06) (Withdrawn) Cathodic protection - Competence levels of cathodic protection persons - Basis for a certification scheme (ISO/DIS 15257.2:2016); German and English version prEN ISO 15257:2016

Din EN ISO 15257 (2015-04) Cathodic Protection - Competence Levels of Cathodic Protection Persons - Basis for Certification Scheme (ISO/DIS 15257:2014)	Din EN 12068 (1999-03) External organic coatings for the corrosion protection of buried or immersed steel pipelines used in conjunction with cathodic protection - Tapes and shrinkable materials	Din EN 12954 (2001-04) Cathodic protection of buried or immersed metallic structures - General principles and application for pipelines; English version of Din EN 12954
Din 30672 (2000-12) (Withdrawn)		
Tape and shrinkable materials for the corrosion protection of buried or underwater pipelines without cathodic protection for use at operating temperatures up to 50 °C	Din 4753-3 (2017-08) Water Heaters, Water Heating installations and Storage Water Heaters for Drinking Water - Part 3: Corrosion Protection on the Water Side by Enamelling and Cathodic Protection - Requirements and Testing	Din 4753-3 (2011-11) Water Heaters, Water Heating installations and Storage Water Heaters for Drinking Water - Part 3: Corrosion Protection on the Water Side by Enamelling and Cathodic Protection - Requirements and Testing
Din EN ISO 12696 (2012-05) (Withdrawn) Cathodic protection of steel in concrete (ISO 12696:2012)	Din EN 16299 (2013-06) Cathodic protection of external surfaces of above ground storage tank bases in contact with soil or foundations	Din 50926 (1992-10) Impressed current cathodic corrosion protection in the bottom zone of unalloyed steel fuel oil storage tanks
Din EN ISO 12696 (2016-07) (Withdrawn) Cathodic protection of steel in concrete (ISO/FDIS 12696:2016); German and English version prEN ISO 12696:2016	Din EN 12954 (2018-10) General principles of cathodic protection of buried or immersed onshore metallic structures; German and English version prEN 12954:2018	Din EN 12954 (2017-03) General principles of cathodic protection of buried or immersed onshore metallic structures; German and English version prEN 12954:2017
Din EN ISO 15589-1 (2017-05) Petroleum, petrochemical and natural gas industries - Cathodic protection of pipeline systems - Part 1: on-land Pipelines (ISO 15589-1:2015); German and English version prEN ISO 15589-1:2017	Din EN 17243 (2018-09) Cathodic protection of internal surfaces of metallic tanks, structures, equipment, and piping containing seawater; German and English version prEN 17243:2018	Din EN ISO 15589-2 (2014-07) Petroleum, petrochemical and natural gas industries - Cathodic protection of pipeline transportation systems - Part 2: offshore pipelines (ISO 15589-2:2012)
Din EN ISO 15589-2 (2013-09) Petroleum, Petrochemical and Natural Gas industries - Cathodic Protection of Pipeline Transportation Systems - Part 2: offshore Pipelines (iso 15589-2:2012)		
ISO	ISO 15257:2017 Cathodic protection - Competence levels of cathodic protection persons - Basis for a certification scheme	ISO/DIS 15257 (Superseded) Cathodic protection - Competence levels of cathodic protection persons - Basis for certification scheme
ISO/FDIS 15257 (Superseded) Cathodic protection - Competence levels of cathodic protection persons - Basis for a certification scheme	ISO/DIS 15257.2 (Superseded) Cathodic protection - Competence levels of cathodic protection persons - Basis for a certification scheme	ISO/DIS 13174 Cathodic protection for harbour installations
ISO 12473:2017 General principles of cathodic protection in seawater	ISO 12696:2016 Cathodic protection of steel in concrete	ISO 12696:2012 (Superseded) Cathodic protection of steel in concrete
ISO 13174:2012 Cathodic protection of harbour installations	ISO 15589-1:2015 Petroleum, petrochemical and natural gas industries - Cathodic protection of pipeline systems - Part 1: on-land pipelines	ISO 20313:2018 Ships and marine technology - Cathodic protection of ships
ISO/DIS 12473 (Superseded) General principles of cathodic protection in seawater	ISO/DIS 12696 Cathodic protection of steel in concrete	ISO/FDIS 12696 (Superseded) Cathodic protection of steel in concrete
ISO/DIS 20313 (Superseded) Ships and marine technology - Cathodic protection of ships	ISO/DIS 22426 Assessment of the effectiveness of cathodic protection based on coupon measurements	ISO/DIS 12495 Cathodic protection for fixed steel offshore structures
ISO/DIS 13173 Cathodic protection for steel offshore floating structures	ISO/DIS 12954 Cathodic protection of buried or immersed metallic structures - General principles and application for pipelines	ISO 15589-2:2012 Petroleum, petrochemical and natural gas industries - Cathodic protection of pipeline transportation systems - Part 2: offshore pipelines

ISO 19097-1:2018 Accelerated life test method of mixed metal oxide anodes for cathodic protection - Part 1: Application in concrete	ISO 19097-2:2018 Accelerated life test method of mixed metal oxide anodes for cathodic protection - Part 2: Application in soils and natural waters	ISO/FDIS 19097-1 (Superseded) Accelerated life test method of mixed metal oxide anodes for cathodic protection - Part 1: Application in concrete
ISO/DIS 19097-1 (Superseded) Accelerated life test method of mixed metal oxide anodes for cathodic protection - Part 1: Application in concrete	ISO/DIS 19097-2 (Superseded) Accelerated life test method of mixed metal oxide anodes for cathodic protection - Part 2: Application in soils and natural waters	ISO/FDIS 19097-2 (Superseded) Accelerated life test method of mixed metal oxide anodes for cathodic protection - Part 2: Application in soils and natural waters
ISO 12473:2006 (Superseded) General principles of cathodic protection in sea water		
AS		
AS 2239-2003 (R2016) Galvanic (sacrificial) anodes for cathodic protection	AS 2832.1:2015 Cathodic protection of metals - Pipes and cables	AS 2832.2-2003 (R2016) Cathodic protection of metals - Compact buried structures (Referenced in Legislation and Codes of Conduct)
AS 2832.3-2005 (R2016) Cathodic protection of metals - Fixed immersed structures (Referenced in Legislation and Codes of Conduct)	AS 2832.4-2006 (R2016) Cathodic protection of metals - internal surfaces (Referenced in Legislation and Codes of Conduct)	AS 2832.5-2008 (R2018) Cathodic protection of metals - Steel in concrete structures (Referenced in Legislation and Codes of Conduct)
AS 4832-2007 (R2017) Cathodic protection - installation of galvanic sacrificial anodes in soil	RUL ML.1-2008 (Withdrawn) Rulings to metal Standards - Cathodic protection interference levels (Ruling to AS 2832.1-2004)	
ASTM		
	ASTM STP1370-99 Designing Cathodic Protection Systems for Marine Structures and Vehicles	ASTM B843-13 (Superseded) Standard Specification for Magnesium Alloy Anodes for Cathodic Protection
ASTM B843-18 (Superseded) Standard Specification for Magnesium Alloy Anodes for Cathodic Protection	ASTM B843-18e1 Standard Specification for Magnesium Alloy Anodes for Cathodic Protection	
AWWA		
	AWWA D104:2017 Automatically Controlled, Impressed-Current Cathodic Protection for the interior Submerged Surfaces of Steel Water Storage Tanks	AWWA D106:2016 Sacrificial Anode Cathodic Protection Systems for the interior Submerged Surfaces of Steel Water Storage Tanks
AWWA D106:2010 (Superseded) Sacrificial Anode Cathodic Protection Systems for the interior Submerged Surfaces of Steel Water Storage Tanks	AWWA D104:2011 (Superseded) Automatically Controlled, Impressed-Current Cathodic Protection for the interior Submerged Surfaces of Steel Water Storage Tanks	
API		
	API 1632 Ed. 3 (1996/R2010) Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems	API 651 Ed. 4 (2014) Cathodic Protection of Aboveground Petroleum Storage Tanks
ABS 0289:2017 Guidance Notes on Cathodic Protection of Ships	ENA ER C46-1:1981 Measures Necessary to Prevent Corrosion Damage to Buried Metallic Structures by Neighbouring Cathodic Protection installations	ITU L.7:1988 Application of Joint Cathodic Protection
PIP PLE00006:2018 Cathodic Protection Systems for Pipelines	ULC S618 Ed. 4 (2008) Standard for Anodes and Reference Electrodes for Cathodic Protection of Steel Underground Tanks	

Table 2 Standard publications for ACI, API, AS, ASME, ASTM, CIA, ISO, NACE NORSE for 6 April to 10 July 2019 for:

New standards, amendments or drafts related to corrosion, published between 6 April to 10 July 2019	
Key word search on 'durability and Corrosion'- 0 citations found.	
Key word search on 'paint and corrosion and 2019'; 1 citation found	
Din EN ISO 12944-5 (2019-07)	Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 5: Protective paint systems (ISO/FDIS 12944-5:2019); German and English version prEN ISO 12944-5:2019
Key word search on 'coating and corrosion' both with 'and 201?'; no citations found	
Key word search on 'galvanize', 'galvanized' both with 'and 201?' or galvanizing and 2019' (and the galvanise variants) – 6 citations found	
ASTM A384/A384M-07(2019)	Standard Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies
ASTM A767/A767M-19	Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement
ASTM A896/A896M-09(2019)	Standard Practice for Conducting Case Studies on Galvanized Structures
UNI EN 10348-2:2019	Steel for the Reinforcement of Concrete - Galvanized Reinforcing Steel - Part 2: Galvanized Reinforcing Steel Products
BS ISO 21746:2019	Composites and Metal Assemblies. Galvanic Corrosion Tests of Carbon Fibre Reinforced Plastics (Cfrps) Related Bonded or Fastened Structures in Artificial Atmospheres. Salt Spray Tests
Din EN ISO 2819 (1995-01) (Withdrawn)	Electrodeposited and chemically deposited coatings on metallic substrates - Review of methods available for testing adhesion (ISO 2819:1980)
Key word search on 'corrosion' and 'concrete' or 'concrete' and 'coatings', each with 'and 201?' – 0 citations found	
Key word search on 'cathode' or 'cathodic', each with 'and 201?' – 0 Citations found	
Key word search on 'anode' or 'anodes' or 'anodic', each with 'and 201?' – 0 Citations found	
Keyword Search on 'electrochemical' or 'electrolysis' or 'electroplated' or 'galvanic', each with 'and 201?'– 3 Citations found corrosion related	
ASTM G3-14(2019)	Standard Practice for Conventions Applicable to Electrochemical Measurements in Corrosion Testing
ASTM G71-81(2019)	Standard Guide for Conducting and Evaluating Galvanic Corrosion Tests in Electrolytes
GOST R 58344:2019	Grounding Conductors and Grounding Devices for Different Purposes. General Technical Requirements for Anode Grounding of installations of Electrochemical Protection Against Corrosion
Keyword Search on 'anodize' or 'anodized' – 3 Citations found	
Din EN 4827 (2019-07)	Aerospace series - Hexavalent chromium free anodizing of aluminium and aluminium alloys; German and English version FprEN 4827:2019
SS EN ISO 3211:2019	Anodizing of Aluminium and Its Alloys - Assessment of Resistance of Anodic Oxidation Coatings to Cracking by Deformation (ISO 3211:2018)
Din EN 3740 (2019-05)	Aerospace series - Bolts, shouldered, thin hexagonal head, close tolerance shank, short thread, in titanium alloy, anodized, MoS<(index)2> coated - Classification: 1100 MPa (at ambient temperature)/315°C; German and English version FprEN 3740:2019