

TRUSTED PARTNER IN THE TENDERING AND DETAIL PHASE**REASONS TO CHOOSE ACIRE**

1. EXPERTS IN DESIGN AND CALCULATION
2. NATIONAL AND INTERNATIONAL EXPERIENCE
3. SUPPORT THROUGHOUT THE ENTIRE PROJECT
4. CLOSE RELATIONSHIP WITH SUPPLIERS
5. COOPERATION WITH UNIVERSITIES

**SERVICES**

- ARCHITECTURE
- GEOTECHNICS
- FOUNDATIONS AND STRUCTURES
- CORROSION STUDIES
- HYDROLOGY AND HYDRAULICS
- ENERGY ANALYSIS AND PROJECT FINANCE
- PHOTOVOLTAIC SYSTEMS
- TECHNICAL DUE DILIGENCE
- ENERGY EFFICIENCY
- BASE PROJECTS
- ACIRE ACADEMY

ACIRE

ATMOSPHERIC AND SOIL CORROSION STUDIES

ATMOSPHERIC CORROSION STUDIES

Studies of atmospheric corrosion in projects for metallic elements of carbon steel, zinc, copper and aluminum, depending on the atmospheric conditions of the site and the useful life of the facility. Estimation of the category of atmospheric corrosion from databases and bibliographic sources (temperature, humidity, contamination, SO₂ and Cl⁻ deposition rates) and determination of the category of atmospheric corrosion from Wire-on-Bolt and Plate Tests with measurement of atmospheric action in-situ according to G116-99 and UNE-EN ISO 9223:2012.

- Definition of the corrosion category
- Definition of galvanizing thickness
- Definition of protective paints

Studies according to current applicable international regulations.

- EN ISO 9223:2012 Corrosion of metals and alloys. Corrosiveness of atmospheres. Classification, determination and estimation.
- EN ISO 14713-1:2017. Zinc coatings. Guidelines and recommendations for the protection against corrosion of iron and steel structures. Part 1: General principles of design and corrosion resistance.
- EN ISO 12944-1:2018. Paints and varnishes. Protection of steel structures against corrosion through protective paint systems.

SOIL CORROSION STUDIES

Soil corrosion studies in facilities for metallic elements depending on the soil conditions. Determination of corrosion potential in the phase of the geotechnical study and determination of the category of corrosion.

Studies according to current applicable international regulations.

- DIN 50929-3:2018. Corrosion of metals - Corrosion likelihood of metallic materials when subject to corrosion from the outside - Part 3: Buried and underwater pipelines and structural components.
- DVGW GW 9:2011. Evaluation of soils in view of their corrosion behaviour towards buried pipelines and vessels of non alloyed iron materials.
- AWWA C105/A21.5-18. Polyethylene encasement for ductile-iron pipe systems.
- EN 12501-1:2003. Protection of metallic materials against corrosion. Probability of corrosion in the soil.



ABOUT ACIRE

ACIRE is a global consultancy focused on architecture, civil engineering and renewable energy projects.

We provide differential value in the architecture, engineering and renewable energy sector, based on a multidisciplinary approach to projects and with a vocation for innovation and optimization

ACIRE is formed by a team of professionals specialized in civil and mechanical engineering, architecture and management, with extensive national and international experience.

As a trusted partner, we are committed to providing techno-commercial solutions and technical and financial advice to our clients around the world, with the main objective of achieving even more competitive and profitable investments, and generating sustainable growth for our clients, our employees and our company.

