

Materials Engineer - Metals – Corrosion [Apply Online](#)

Department

Engineering

Location

Palo Alto, Deer Creek, Office

Req. ID

37155

Job Type

Fulltime

Tesla Materials & Processes Engineering – Sr. Corrosion Engineer

Role

The purpose of the Tesla Materials Engineering organization is to facilitate the Tesla mission of accelerating the world to sustainable transportation via identification, development and insertion of advanced materials and processes while supporting other Tesla Engineering and Manufacturing functions with materials expertise.

The Tesla Materials Engineering team is seeking a Corrosion Engineer to support all Vehicle Engineering functions.

Responsibilities:

- Evaluate part and assembly designs for corrosion risk in all areas of the vehicle taking into account materials, joint designs, coatings/paint/sealers and service environment.
- Identify corrosion mitigation strategies to address corrosion risks.
- Establish test procedures and requirements in order to validate corrosion mitigation solutions when necessary (i.e. cannot be done via first principles evaluations).
- Collaborate closely with design, reliability, test and manufacturing on corrosion related topics.

Requirements:

- Materials Engineering degree with specific emphasis on Corrosion. Advanced degrees preferred.
- Experience with corrosion of aluminum, steel and mixed material structures prone to galvanic corrosion. Understand the implications of the galvanic series and Pourbaix diagrams.
- Familiar with corrosion mechanisms and role of microstructure and environment, including crevice corrosion, pitting corrosion and stress corrosion.
- Proven ability to evaluate the corrosion risk if a design, identify mitigation strategies and analytically and/or experimentally validating those strategies.