

Materials Engineer - Drivetrain Metallurgy [Apply Online](#)

Department

Engineering

Location

Palo Alto, Deer Creek, Office

Req. ID

41287

Job Type

Full-time

Tesla Materials & Processes Engineering – Drivetrain Metallurgical 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 team is seeking a Metallurgical Engineer to be dedicated to metallic materials associated with Drivetrain design and manufacturing.

Responsibilities:

- Provide direction to Drivetrain Design Engineers on relative to appropriate and optimal Materials & Processes selection.
- Identify needs not addressed by current material solutions and lead development of new materials technologies for Drivetrain Engineering.
- Determine properties and appropriate design values for design and analysis.
- Establish test plans when necessary to characterize application specific material properties.
- Develop, author and publish material and process specifications.

Requirements :

- Materials Engineering degree. Metallurgical Engineering focus and advanced degrees are preferred.
- Fundamental knowledge of process-structure-property relationships in case and through hardened steels used in bearings and gears.
- Familiar with tribology, wear and contact fatigue as well as lubrication in terms of engineering principles as well as surface characterization methods.
- Knowledge of plating processes and other surface modification techniques.
- Practical experience with alloy and process selection, application specific characterization and specification development for metallic materials used in automotive drivetrain, or similar, components.