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## What Is The Importance Of Tensile Strength?

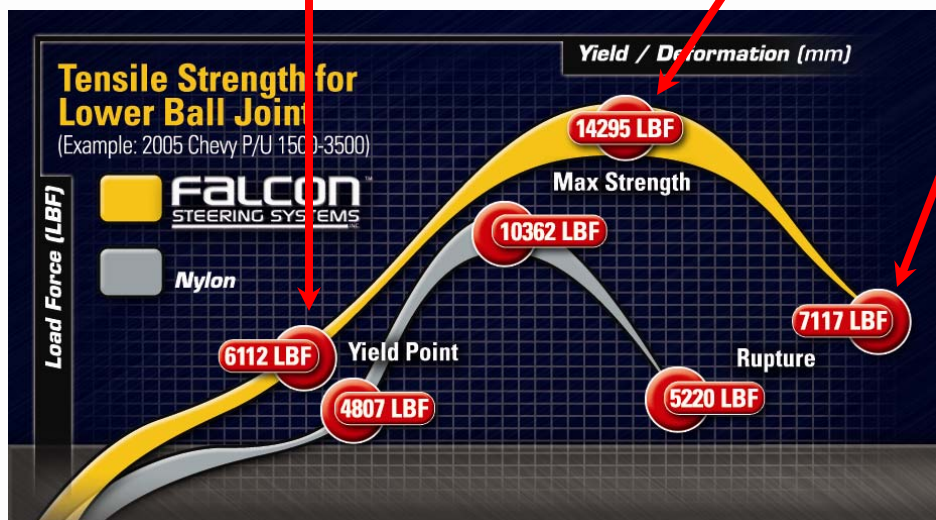
Tensile strength testing determines material strength and stress at which material breaks or permanently deforms. The test analysis produces important measuring parameters of engineering materials and key specifications for materials such as alloys and composite materials.

Tensile strength analysis provides **three key measurable parameters**:

- **Yield strength**
- **Maximum or ultimate strength**
- **Rupture or breaking strength**

**Yield Strength** is the point where material can be stressed to and return to it's initial shape without any permanent deformation in the material. Any stress above this point, deformation will occur and the material cannot return to it's original shape.

**Maximum Strength** is the area where the material begins to "neck". When "necking" becomes substantial, it will cause a reversal in the original engineering strain curve in which the product is permanently weakened.



**Rupture Strength** is the point at which the material will actually break and complete failure occurs. This can cause catastrophic driving conditions and can potentially result in an accident.

**Note:**  
LBF = Load Pounds of Force per square inch

Falcon Steering Systems uses high grade "Chromium Molybdenum" hardened steel ball studs and socket walls (verses Nylon bushings) to ensure long lasting performance and precise steering response. **The net result is Falcon products will have over a 35% increase in maximum yield strength before any deformation of the ball joint occurs.**

**Professional Quality Products Since 1988**

