

# Corrosion Glossary

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## yield

Evidence of *plastic deformation* in structural materials. Also called plastic flow or creep. See also flow.

## yield point

The first stress in a material, usually less than the maximum attainable stress, at which an increase in strain occurs without an increase in stress. Only certain metals - those that exhibit a localized, heterogeneous type of transition from *elastic deformation* to *plastic deformation* - produce a yield point. If there is a decrease in stress after yielding, a distinction may be made between upper and lower yield points. The load at which a sudden drop in the flow curve occurs is called the upper yield point. The constant load shown on the flow curve is the lower yield point.

## yield strength

The stress at which a material exhibits a specified deviation from proportionality of stress and strain. An onset of 0.2% is used for many metals.

## yield stress

The stress level in a material at or above the *yield strength* but below the *ultimate strength*, i.e., a stress in the plastic range.