

## Datasheet Glossary

<b>PRE</b> <b>Pitting Resistance Equivalent</b>	This is a means of ranking various alloys against their ability to resist pitting corrosion based on a calculation of the alloying elements. The most commonly used calculation which is adopted by Novametal Wire UK Limited is as follows;  PREN = Cr + 3.3Mo + 16N
<b>Min Breaking Load</b>	The minimum load required to break the wireline or strand.
<b>Typical Breaking Load</b>	Most frequent load which breaks the wireline or strand.
<b>Ultimate Tensile Strength</b>	Maximum resistance to fracture whilst under tension. It is defined as the maximum load divided by original cross-sectional area.
<b>Yield Strength</b>	The yield strength or yield point of a material is defined as the stress at which a material begins to deform plastically. Prior to the yield point the material will deform elastically and will return to its original shape when the applied stress is removed. Once the yield point is passed some fraction of the deformation will be permanent and non-reversible.
<b>Proof Stress</b>	The load per unit area that a wireline or strand can withstand without being permanently deformed by more than a specified amount.
<b>Elastic Limit</b>	The maximum load that can be applied to a wireline or strand without producing permanent deformation (the material returning to its original shape and dimension once the load is removed).
<b>Modulus of Elasticity</b>	The measure of the stiffness of a slickline which may be determined from the slope of a stress-strain curve created during tensile tests conducted on a sample of the material. It can be used to predict the amount a wire will extend under tension or buckle under compression.
<b>Recommended Safe Load</b>	A percentage of the effective breaking load governed to be free of any harmful deformation.
<b>Density</b>	A physical property of matter which is defined as its mass per unit volume.
<b>Coefficient of Linear Expansion</b>	The change in length of <b>one unit metre</b> resulting from a one degree rise in temperature, expressed in mm/m/OC.
<b>Min Wireline Stretch</b>	The minimum a wireline will elongate whilst under load (own weight + tool weight).
<b>Specific Heat</b>	The amount of heat required to raise the temperature of a given amount of a substance by 1OC.
<b>Resistivity</b>	The ability of a material to resist electrical conduction.
<b>Magnetic Permeability</b>	The measure of the ability of a material to support the formation of a magnetic field within itself.