

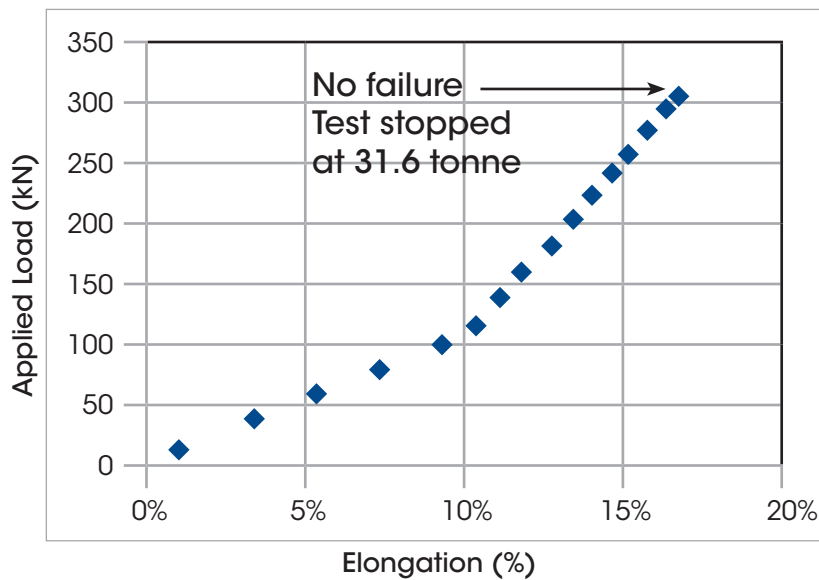


Technical Note: Applied load vs Elongation (%)



Applied load vs elongation (%) description

- This graph shows actual results for a 30 tonne Nylon Mooring Line. A pre-load of 5kN was applied
- Smooth stretch up to 20% typical elongation is achieved by the Nylon 6.6 fibres and rubber casing combination
- It is typical for the Nylon Line to stretch more at low applied loads before assuming a linear gradient as displayed on the graph
- Nylon 6.6 load bearing fibres are arranged as an endless parallel lay configuration around steel eyes/thimbles and wrapped in a protective rubber outer casing
- Nylon Mooring Lines reduce shock loading in use
- Failure of the Nylon Mooring Line from overloading can result in considerable re-coil. Nylon fibres separate at one eye and bury deep into the rubber casing which acts as a dampening mass (dead-weight)



Break strength is the applied load at which the mooring line fails

Applied load vs Elongation (%) curves vary for different sized mooring lines and for different eye combinations

Note: Applied Load of 294kN is roughly 30,000kgf. A 30t Break strength mooring line fails above this applied load