

UNS S31254 | WN 1.4547
PRE: 42-46

Supernova 700®

Developed for service in high-chloride environments, Supernova 700® provides good tensile strength and excellent resistance to pitting as well as very good resistance to crevice corrosion and chloride stress corrosion cracking.

Manufactured in Switzerland and certified to 9001:2008 all Supernova Slicklines are fully traceable, 100% Weld Free, 100% Eddy Current Tested and Wrap Tested.

All are produced with a consistent, tightly controlled surface finish, wire helix and wire cast for optimal spooling and in-service performance.

Supernova 700® is unique to Novametal SA, in many environments Supernova 700® may provide a cost-effective alternative to Supernova 750® and superior corrosion resistance than Supernova 400®.

Key Characteristics

- Excellent resistance to pitting (highly localised corrosion)
- High resistance to crevice corrosion
- High resistance to chloride stress corrosion cracking (SCC)
- Service temperature up to 250°C
- High ductility and impact strength
- High resistance to general corrosion
- Low Magnetic Permeability

Key Data

Standard Diameter ¹	Min Breaking Load	Min Tensile		Nominal Weight	Minimum Slickline Stretch ²	Minimum Sheave Diameter
		N/mm ²	Ksi			
Inches	lbf			lbs/ 1000ft	Inch/100ft/ 100lb	Inches
0.092	1610	1650	242	23.30	0.79	11
0.108	2120	1600	232	32.00	0.58	13
0.125	2650	1490	216	42.90	0.43	15
0.140	3130	1410	203	54.10	0.34	17
0.160	3920	1380	195	70.00	0.26	20

¹ Tolerance +/-0.001" - other diameters are available on request.

Standard Lengths | 15,000ft | 18,000ft | 6,000m | 20,000ft | 7,000m | 25,000ft | 8,000m | 30,000ft

Other lengths are available on request.

Chemical Composition

Element		C	Si	Mn	P	S	Cr	Mo	Cu	Ni	N
Weight %	Min	-	-	-	-	-	19.50	6.00	0.50	17.50	0.15
	Max	0.02	0.80	1.00	0.04	0.005	21.00	6.50	1.00	18.50	0.25

Corrosion Resistance

PRE Number (PRE)

PRE: 42 - 46

$$PRE = Cr + 3.3 \times Mo + 16 \times N$$

Pitting Resistance Equivalent numbers (PRE) are a way of comparing the pitting corrosion resistance of various stainless steels based on the levels of chromium, molybdenum and nitrogen they contain with the most frequently used formula and Novametal's preferred method for calculating PRE numbers being :

$$PRE = \text{Chromium} + 3.3 \times \text{Molybdenum} + 16 \times \text{Nitrogen.}$$

Some suppliers may use a factor of 30 x N

Grade Selection

To ensure you obtain the optimal slickline for your requirements we will be pleased to make a recommendation on the most cost-effective material selection. Well environment details may be sent by email to slickline@novametal.co.uk

Physical Properties

Density	g/cm ³	8.1
Coefficient of Linear Expansion	µm/m/°C	17.0
Thermal Conductivity	W/m.K	13.50

Safe Working Loads (SWL)

Novametal recommends a maximum safe working load of 60% based on the published Minimum Break Load.

Where permitted by operating procedures and contractual constraints, the SWL may be set at 60% of the certified Actual Breaking Load.

Anyone wishing to operate with a higher SWL is encouraged to contact Novametal Techwire direct before doing so.

Other Mechanical Properties

Yield Strength	(0.2% P.S.)	80 - 90% UTS
Elastic Strength		22 - 28% UTS
Minimum Wraps		8

Certification & Packaging

Reel specific Test Certificates are issued for all slicklines giving alloy chemistry, breaking load and key mechanical properties. All Supernova Slicklines are supplied on metal reels in individual treated timber crates for easy handling and safe storage.

Specific Heat	j/kg.K	500
Resistivity	µOhm Cm	85
Magnetic Permeability		1.010

Other Slickline Grades Available

ZERON® 100 **SUPERNOVA 316®** **SUPERNOVA 400®** **SUPERNOVA 750®**

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