SUPA 40® Slickline

UNS S31803

SUPA 40® is a duplex stainless steel suitable for well conditions with medium concentrations of CO_2, up to 35% with no H_2S present and up to 30% chlorides where H_2S partial pressure is 3% max. The duplex structure of SUPA 40® improves the corrosion resistance and strength compared to ASTM 316 stainless steel. SUPA 40® is characterized by excellent resistance to pitting and crevice corrosion as well as resistance to chloride stress corrosion; SUPA 40® also exhibits high resistance to general corrosion. SUPA 40® slicklines are available in continuous weld free lengths up to 30,000+ ft (9145 m). Every SUPA 40® line is 100% NDT and inspected. SUPA® slicklines are shipped on steel reels. Custom lengths and diameters are available.

Chemical Compositional Range (wt. %)

	Ni	Cr	Mo	Si	N	Mn	P	S	C	PRE = %Cr + 3.3 x % Mo + 16 x %N
Min	4.5	21.0	2.5		0.14					
Max	6.5	23.0	3.5	1.0	0.20	2.0	0.03	0.020	0.03	PRE = 31.5 to 37.7

Physical Properties

Density	0.282 lbs./in³	7.8 g / cm³
Thermal Expansion	7.2 x 10^{-6} (32 to 212 °F)	13.0 x 10^{-6} (0 to 100 °C)
Thermal Conductivity	131.7 BTU in/Ft² . h . °F (@212 °F)	19.0 W/m. ° K (@ 100 °C)

Dia. (in.)	Dia. (mm)	NOMINAL Breaking Load (lbf)	NOMINAL Breaking Load (kN)	NOMINAL Weight (lbs./1,000 ft.)	NOMINAL Weight (kg/1000 m)
.092	2.34	1,600	7.33	22.42	33.48
.108	2.74	2,200	9.56	31.00	46.14
.125	3.18	3,000	12.45	41.53	61.80
.140	3.56	3,650	15.12	52.09	77.52
.150	3.81	4,100	16.68	59.80	88.99
.160	4.06	4,400	18.81	68.04	101.26

To maximize the life of your SUPA® Slickline:

- Use properly sized sheaves (min. sheave diameter = 120 x wire OD) and inspect them for excessive wear
- Ensure the sheaves rotate freely
- Always use new guides in the stuffing box
- Avoid kinking the line
- Layer winding or smooth wrapping onto the winch drum will result in extended life/less damage and reduced likelihood of small kinks
- Prevent the line from rubbing the side of the drum, dragging on the ground, over shafts or other equipment
- Maintain the natural curvature of the wire, maintain constant tension during winding and re-spooling operations
- Exercise extreme caution during jarring operations, check “jarred” lines for possible stretch (reduced wire diameter) or other damage
- When running the line down hole avoid sudden brake application
- Never store reels on their sides
- Maintaining a logbook for each line is recommended
- Clean the line after each use