GD™-SUPA® SLICKLINES
CENTRAL WIRE INDUSTRIES
World Class Products, World Class Service, World Class Reputation

CWI GD™ / SUPA® Series of Slicklines

The CWI family of GD™ - SUPA® slicklines are engineered for oil, gas and geothermal applications. Our slicklines are manufactured in North America and the United Kingdom from alloys designed to provide a continuous weld free, bright finish slickline that will perform in today's corrosive conditions that exist in oil, gas, and geothermal well environments.

GD316™ (S31600) is our austenitic stainless steel line suitable for well conditions where CO_2 does not exceed 30%, providing chlorides do not exceed 2-3% with no H_2S present.

GD22™ / SUPA 40® (S31803 / S32205) is our Duplex stainless steel line. It has excellent resistance to high chloride concentrations (up to 30%), and up to 30% concentration CO_2 where H_2S does not exceed ~3% partial pressure, while exhibiting breaking loads greater than GD316™.

GD31Mo™ / SUPA 75® (UNS N08926) is a super-austenitic stainless steel with excellent general corrosion resistance and pitting resistance in aggressive environments containing high concentrations of CO_2, H_2S and Cl^-. The increased molybdenum content of GD31Mo™ offers superior corrosion resistance and mechanical properties compared to those of GD35™.

GD35Mo™ (UNS N08028) is a super-austenitic stainless steel with very good general corrosion resistance and pitting resistance in aggressive environments containing high concentrations of CO_2, H_2S and Cl^-. GD35Mo™ offers superior corrosion resistance and mechanical properties to those of GD316™ & GD22™.

GD39Mo™ / SUPA 80® (UNS N08031) is our newest series of super-austenitic stainless steel wirelines. With a PREN >50, it possesses excellent general corrosion and pitting resistance in aggressive environments containing high concentrations of CO_2, H_2S, and Cl^-. It has breaking loads greater than GD31Mo™ / SUPA 75®.

GD50™ (R30035) is a cobalt based alloy that possesses good ductility and break strength and will withstand extremely sour well conditions.

Chemical Compositional Range (wt. %)

Alloy		UNS	Ni	Cr	Mo	Cu	N	Mn	P	S	C	Si	Other	PREN
GD316™		S31600	10.5 - 14.5	16.0 - 18.0	2.0 - 3.0		0.04 - 0.06	2.0 max.	0.045 max.	0.01 max.	0.06 max.	1.0 max.		23 - 29
GD22™	**SUPA40®**	S31803	4.5 - 6.5	21 - 23	2.5 - 3.5		0.14 - 0.20	2.0 max.	0.03 max.	0.02 max.	0.03 max.	1.0 max.		32 - 38
GD31Mo™	**SUPA75®**	N08926	24.0 - 26.0	20.0 - 21.0	6.0 - 6.8	0.5 - 1.0	0.15 - 0.25	2.0 max.	0.03 max.	0.005 max.	0.02 max.			42 - 47
GD35Mo™		N08028	30.0 - 32.0	26.0 - 28.0	3.0 - 4.0	1.0 - 1.4	0.04 - 0.07	2.0 max.	0.02 max.	0.01 max.	0.015 max.	0.7 max.		37 - 42
GD39Mo™	**SUPA80®**	N08031	30.0 - 32.0	26.0 - 28.0	6.0 - 7.0	1.0 - 1.4	0.15 - 0.25	2.0 max.	0.02 max.	0.01 max.	0.015 max.			48 - 55
***GD50™**		R30035	33.0 - 37.0	19.0 - 21.0	9.0 - 10.5			0.15 max.	0.015 max.	0.01 max.	0.02 max.	0.15 max.	Ti-1.0 Bal. - Co	56+

PRE = %Cr + 3.3 x % Mo + 16 x %N

*GD50™ contains ~30% Cobalt which the PRE calculation does not take into account

Diameters (in.) / Wt. per 1000 ft. (lbs.)

Alloy		UNS	0.092 in.	0.108 in.	0.125 in.	0.140 in.	0.160 in.
GD316™		S31600	22.89	31.55	42.27	53.02	69.25
GD22™	**SUPA40®**	S31803	22.50	31.00	41.53	52.09	68.04
SUPA®-GD100™	**SUPA®-GD100™**	S32760	22.6	31.1	41.7	52.3	68.3
GD31Mo™	**SUPA75®**	N08926	23.37	32.21	43.15	54.12	70.70
GD35Mo™		N08028	22.9	31.55	42.30		
GD39Mo™	**SUPA80®**	N08031	23.4	32.21	43.15		
GD50™		R30035	24.20	33.40	44.80	56.20	73.40

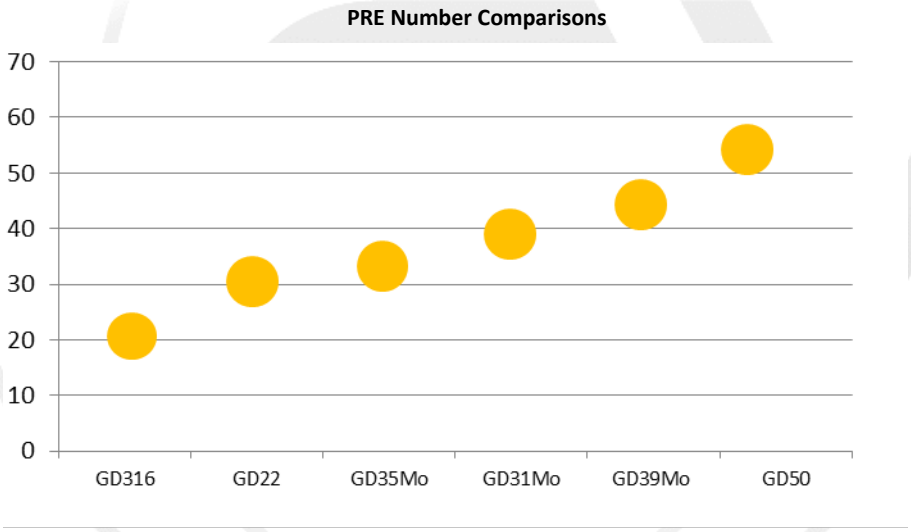
Minimum Breaking Load in lbs. (kN) by Diameter

Alloy	UNS	0.092 in.	(2.33mm)	0.108 in.	(2.74mm)	0.125 in.	(3.18mm)	0.140 in.	(3.56mm)	0.160in	(4.06mm)
GD316™	S31600	1,430 lbs.	6.36 kN	1,960 lbs.	8.72 kN	2,640 lbs.	11.74 kN	3,325 lbs.	14.79 kN	4,220 lbs.	18.77 kN
GD22™	S31803	1,600 lbs.	7.12 kN	2,200 lbs.	9.79 kN	3,000 lbs.	13.35 kN	3,650 lbs.	16.24 kN	4,500 lbs.	20.02 kN
SUPA40®	S31803	1,600 lbs.	7.12 kN	2,150 lbs.	9.56 kN	2,800 lbs.	12.45 kN	3,400 lbs.	15.12 kN	4,230 lbs.	18.81 kN
SUPA®-GD100™	S32760	1,629 lbs.	7.25 kN	2,200 lbs.	9.78 kN	3,000 lbs.	13.35 kN				
GD31Mo™	N08926	1,550 lbs.	6.90 kN	2,170 lbs.	9.65 kN	2,850 lbs.	12.68 kN	3,400 lbs.	15.12 kN	4,400 lbs.	19.57 kN
SUPA75®	N08926	1,550 lbs.	6.90 kN	2,100 lbs.	9.00 kN	2,850 lbs.	12.68 kN	3,250 lbs.	14.45 kN	4,250 lbs.	18.90 kN
GD35Mo™	N08028	1,450 lbs.	6.45 kN	1,970 lbs.	8.76 kN	2,600 lbs.	11.57 kN				
GD39Mo™	N08031	1,680 lbs.	7.47 kN	2,244 lbs.	9.98 kN	3,100 lbs.	13.79 kN				
SUPA80® (**)	N08031	1,680 lbs.	7.47 kN	2,244 lbs.	9.98 kN	3,100 lbs.	13.79 kN				
***GD50™ (*) (**)**	R30035	1,680 lbs.	7.47 kN	2,244 lbs.	9.98 kN	3,200 lbs.	14.23 kN	3,500 lbs.	15.56 kN	4,875 lbs.	21.69 kN

Contain no welds. Custom lengths and diameters available. *excludes GD50 0.140" & 0.160" diameters **Nominal Breaking Loads

Material Selection Software

By employing the latest comprehensive material selection tool and complimented with access to a pool of experience and expertise, CWI can provide recommendations and guidance as to which GD™/ SUPA® Slickline is best suited for your project.



To maximize the life of your GD™ / 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 the wire 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 reel on their sides
- Maintaining a logbook for each reel is recommended
- Clean the line after each use