



## CWI GD™ / SUPA® Series of Slicklines

Rev. 1-JAN-19

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<sub>2</sub> does not exceed 30%, providing chlorides do not exceed 2-3% with no H<sub>2</sub>S 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<sub>2</sub> where H<sub>2</sub>S 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<sub>2</sub>, H<sub>2</sub>S 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<sub>2</sub>, H<sub>2</sub>S 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<sub>2</sub>, H<sub>2</sub>S, 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	10.0 - 14.5	16.0 - 18.0	2.0 - 3.0		0.06 max.	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®	22.50	31.00	41.53	52.09	68.04
SUPA®-GD100™	SUPA®-GD100™	22.6	31.1	41.7	52.3	68.3
GD31Mo™	SUPA75®	23.37	32.21	43.15	54.12	70.70
GD35Mo™	N08028	22.9	31.55	42.30		
GD39Mo™	SUPA80®	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**

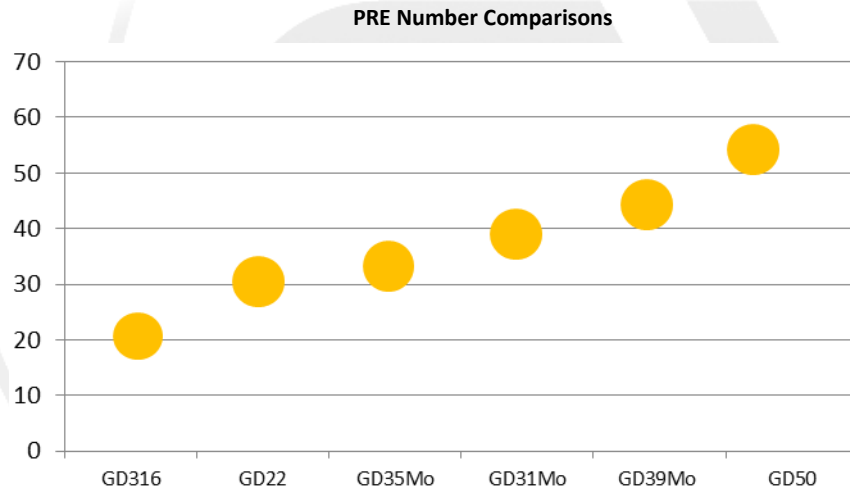
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Alloy	UNS	0.092 in.	(2.33mm)	0.108 in.	(2.74mm)	0.125 in.	(3.18mm)	0.140 in.	(3.56mm)	0.160in	(4.06mm)
GD316™	S31600	1,430 lbs.	6.36 kN	1,960 lbs.	8.72 kN	2,640 lbs.	11.74 kN	3,325 lbs.	14.79 kN	4,220 lbs.	18.77 kN
GD22™ (**)	S31803	1,600 lbs.	7.12 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