

## SUPER DUPLEX STAINLESS STEEL WIRELINES

### PRODUCT DESCRIPTION

AMINOX 255 wirelines are produced in high performance super duplex (PREN >40.0) stainless steel with the chemical composition to UNS S32550 and EN 10088 1.4507. The product is covered by UK patent 2354264B. High strength is combined with good corrosion resistance. Ductility is good and AMINOX 255 typically provides twice the number of torsions than that obtained from high nickel / high molybdenum austenitic stainless steels.

### SIZE RANGE

0.092, 0.108 and 0.125 in. diameter.

### CORROSION RESISTANCE

AMINOX 255 wirelines have proven in service to be highly resistant to downhole environments which can be characterised as up to medium sour in nature.

### PRODUCT ATTRIBUTES

- High minimum breaking load
- High modulus of elasticity
- Good ductility
- Outstanding resistance to pitting in chloride environments
- High resistance to chloride with H<sub>2</sub>S and CO<sub>2</sub>
- Excellent resistance to stress corrosion cracking
- Good fatigue / corrosion fatigue resistance
- Good abrasion resistance

### CHEMICAL COMPOSITION (WEIGHT %)

	C	Si	Mn	S	P	Cr	Ni	Mo	Cu	N	Fe	PREn*
Min						24.0	5.50	3.00	1.5	0.15		40.0
Max	0.04	1.00	1.50	0.030	0.040	27.0	6.50	3.90	2.5	0.25	Bal.	

\* based on % Cr + 3.3 % Mo + 16 % N

### MECHANICAL PROPERTIES (Typical unless stated as minimum)

Wireline diameter (inch)	0.092	0.108	0.125
Breaking load (lbf)	1620 (min.)	2110 (min.)	2695 (min.)
UTS (N/mm <sup>2</sup> )	1675 (min.)	1595 (min.)	1510 (min.)
0.2% PS (% of UTS)	82-90	83-89	81-89
Elastic limit (% of UTS)	40-50	36-53	30-40
Modulus of elasticity (GPa)	170	170	170
Elong. on 100mm GL (%)	2-3	2-4	3-4
Torsions on 8 in. GL	4-6	3-5	3-4
Minimum bend diameter	120xd	120xd	120xd

### TECHNICAL SALES ASSISTANCE

Our resident team of qualified metallurgists and engineers will be pleased to assist further on any technical topic.

AMINOX is a registered trademark of Advanced Metals International

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