Datasheet

Bekaert

Advanced 7-wire strands for demanding applications

Supreme ductility and optimal breaking load to support your projects

General description

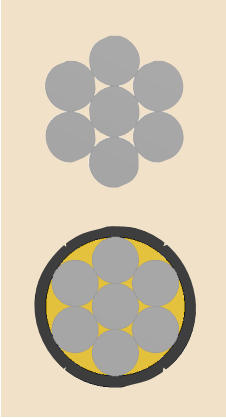
The characteristics of our advanced low relaxation 7-wire strands comply with the BS5896 & prEN 10138-3 standard. All wire strands can be bright, coated with Zinc, Bezinal® or Bezinal®3000. Strands can also be greased with HDPE sheathing.

Application

Our advanced strands are ideal for demanding applications that require exceptional ductility, such as nuclear power plants, heavy lifting jacks, LNG tanks, external PT tendons for highly corrosive environment and other high-end uses.

Technical specifications

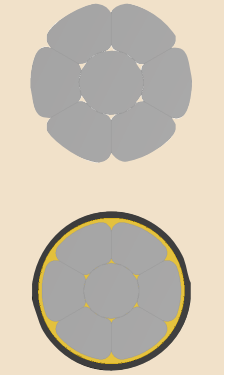
7-wire round strand



Steel designation		Nominal [a]				Specified			
Steel name	Steel number	Diameter [b] d mm	Tensile strength Rm MPa	Cross-sectional area [c] Sn mm2	Mass per meter [c] M g/m	Mass tolerance per meter %	Minimum breaking strength Fm kN	Maximum breaking strength Fm, max kN	Yield strength at 0.1 % elongation Fp0.1 kN
Y1860S7	1.1366	15,2	1 860	139,0	1 086,0	± 2	259,0	298,0	228,0
		15,7		150,0	1 172,0		279,0	321,0	246,0

a The modulus of elasticity (E) may be taken to be 195 GPa (kN/mm²).
b The nominal mass per metre is calculated from the nominal cross-sectional area and a density of 7,81 kg/dm³.
c Please note that for grade Y1860S7, the minimum load at 1% extension force applies to 88% of the grades.

7-wire compacted strand



Steel designation		Nominal [a]				Specified			
Steel name	Steel number	Diameter [b] d mm	Tensile strength Rm MPa	Cross-sectional area [c] Sn mm2	Mass per meter [c] M g/m	Mass tolerance per meter %	Minimum breaking strength Fm kN	Maximum breaking strength Fm, max kN	Yield strength at 0.1 % elongation Fp0.1 kN
Y1860S7G	1.1372	12,7	1 860	112,0	874,7	±2	208,0	298,0	228,0
		15,2		165,0	1 289,0		307,0	321,0	246,0
Y1820S7G	1.1371	15,2	1 820	165,0	1 289,0	±2	300,0	345,0	264,0
Y1700S7G	1.1370	18,0	1 700	223,0	1 742,0	±2	379,0	436,0	334,0
Y1700S7G*	1.1370	18,2	1 700	231,0	1 820,0	±2	400,0	420,0	340,0

a The modulus of elasticity (E) may be taken to be 195 GPa (kN/mm²).
b The nominal mass per metre is calculated from the nominal cross-sectional area and a density of 7,81 kg/dm³.
c Please note that for grades Y1700S7G, Y1820S7G and Y1860S7G, the minimum load at 1% extension force applies to 88% of the grades.
* Made on request of the customer

Technical specifications for sheathed strands

Mechanical properties of the sheath	
Yield strength @ 23º C	> 18 MPa
Elongation @ rupture @ 23º C	> 500 %

Mechanical properties of the sheathed strand	
Watertightness test	No mass variaton
Initial resistance to friction	< 60 N
HDPE wall thickness	1,5 - 2,0 mm

Available packaging

Coil dimensions

Inner diameter	900 mm	1 070 mm
Outer diameter	1 630 mm (max.)	
Height	610 mm	750 mm
Weight	4 500 kg (max.)	

Wooden drum dimensions*

Diameter	1 600 mm	
Width	900 mm (max.)	
Achor hole	155 mm (max.)	
Core diameter	900 mm	950 mm
Weight	3 500 kg (max.)	

*Customized packaging dimensions available upon request.

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