SCHOELLER BLECKMANN OILFIELD TECHNOLOGY

Data sheet P 750 HS

Revision 1

1. CHEMICAL COMPOSITION

„P750 HS“ is a high pitting corrosion resistant nonmagnetic, austenitic Cr-Ni-N-steel, specifically developed for oilfield applications.

C	Mn	Cr	Ni	Mo	N
max. 0,03	1,50-3,00	26,50-29,50	28,00-31,50	2,00-4,00	min. 0,20

2. MECHANICAL PROPERTIES

Following mechanical properties (tested at room temperature) are achieved by a special cold-working process over the full length of the collar:

Yield Strength (min.): 0,2%-offset method	OD max. 6“	**175 ksi**	**1208 N/mm²**
Tensile Strength (min.):		**180 ksi**	**1242 N/mm²**
Elongation (min.):		**10%**	**10%**
Reduction of area (min.):		**50%**	**50%**
Impact energy (min.):		**80 ft.lb**	**110 J**
Endurance Strength / N=10^5 (min.):		**± 80 ksi**	**± 550 N/mm²**
Hardness Brinell:		**300-420 HB**	**300-420 HB**

3. MAGNETIC PROPERTIES

Relative permeability: ≤ 1,001.

4. CORROSION RESISTANCE

- **Transgranular SCC:** Prevented by special surface treatments (Hammer peening, roller burnishing, shot peening).
- **Intergranular SCC:** The occurrence of material sensitization is prevented by quenching after warmforging. Each collar is tested according to ASTM A 262, Pract.A and E, last edition.
- **Pitting Corrosion:** Due to a high chromium-, nickel- and nitrogen contents an excellent resistance to pitting corrosion comparable to nickelbase alloys is given.

5. NON-DESTRUCTIVE TESTING

- **Magnetic inspection:** Drill collars are 100% tested by a proprietary probe-testing process using a Förster Magnetomat 1.782. (“Hot Spot“-test). Magnetic permeability of each collar is certified with the printout of probe-testing.
- **Ultrasonic inspection:** Each collar is ultrasonically inspected over 100% of the volume according to ASTM E 114, last edition as a minimum level.

P750 HS Non-Magnetic Drill Collars meet all requirements of API Spec. 7.1, last edition.
All tests are carried out according to ASTM-Standards, last editions.
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Date: June, 2013