

# Technical Data Sheet

## Quellon HD



### Product description:

Bentonite clay pellets with very high swelling capacity, increased density and enhanced detectability to produce waterproof sealings. Preferred application for the completion of deep boreholes drilled with rotary mud methods.



### Product characteristics:

Appearance:	Clay pellets	
Dimension (length):	8-14	mm
Dimension (diameter):	10	mm
Swell compressive strength:	8	N/cm <sup>2</sup>
Gamma ray activity:	approx. 50	API
Bulk density:	1,4	g/cm <sup>3</sup>
Coefficient of permeability $k_f$ :	$< 2 \times 10^{-11}$	m/s
Sinking speed (water):	40	m/min
Structural stability:	4	class

### Field of application:

The high density of the Quellon HD pellets causes an increased sinking velocity during the installation process. Risks of bridging are minimized, accurate placement in boreholes greater than 100 m depth is possible. Smooth surfaces and the high structural stability of the Quellon HD pellets delay swelling and prevent untimely dispersion. The excellent swelling capacity of Quellon HD ensures a strong attachment of the seal to the borehole wall and the installed casing, without any leakages along the surface of contact. Because of the magnetic behaviour of Quellon HD, annular seals are excellently detectable by means of magnetic logging.

### Determinations of requirements:

1. Borehole backfill:

$$\text{Borehole diameter}^2[\text{dm}] \times 11 \rightarrow \text{Quellon HD} [\text{kg/m}]$$

2. Annular sealing:

$$(\text{Borehole diameter}^2[\text{dm}] - \text{casing diameter}^2[\text{dm}]) \times 11 \rightarrow \text{Quellon HD} [\text{kg/m}]$$

### Form of delivery:

Quellon HD is available in 25 kg plastic bags and 1 t big bags