

# Betol<sup>®</sup> 38

## Binder and Special Additive based on Alkali Silicate

### Chemical description

Betol 38 is an inorganic binder and additive based on aqueous sodium silicate solution.

### Mode of action

Used as a binder Betol 38 exhibits excellent tacking power and bonding strength. It may either be cured by physical drying or by chemical reaction e.g. with CO<sub>2</sub> gas or reactive acid precursors or polyvalent metal components.

Betol 38 also acts as setting accelerator for Portland or aluminate cement based mortars (e.g. in shotcreting applications).

### Specification (average values)

Na <sub>2</sub> O:	approx. 8,3 %	001 *)
SiO <sub>2</sub> :	approx. 27,5 %	001 *)
Weight ratio (SiO <sub>2</sub> : Na <sub>2</sub> O):	approx. 3,3	
Molar ratio (SiO <sub>2</sub> : Na <sub>2</sub> O):	approx. 3,4	
Solids content:	approx. 36 %	007 *)
Density (20°C):	approx. 1,37 g/cm <sup>3</sup>	042 *)
pH-Value (10 % in water):	approx. 11,3	008 *)
Viscosity (20°C):	approx. 100 mPas	053 *)
Solubility:	can be diluted with water in any ratio	

\*) Internal method code – description available on request

### Properties

- Stable, alkaline liquid,
- Miscible with water in any ratio,
- Corrosion inhibiting, esp. on iron, steel etc.,
- Setting accelerator for cement based products,
- Can be cured by organic or inorganic hardeners, acidic gases (e.g. CO<sub>2</sub>) etc.,
- Non combustible,
- Flame retarding effect,
- Even on heating no toxic gases are evolved.

### Application

- Soil grouting and stabilization,
- Setting accelerator for shotcrete mortars,
- Mining and tunneling reinforcement,
- Refractories,
- Acid and fire proof adhesives,
- Ore and coal flotation,
- Water treatment.

**Note**

The application of Betol 38 as a construction auxiliary (setting accelerator) in mining operations has been approved according to German Mining Directive GesBergV § 4 Sect. 1 No. 2 by Bezirksregierung Arnsberg / Germany

Betol 38 must be stored in tightly closed containers. Clean application utensils with water after work.

**Storage**

Betol 38 must be protected from frost (> 0°C). Storage stability in closed containers or tanks at least 12 months.

Do not store in aluminium or galvanized containers.

**Labelling / Safety**

Please see safety data sheet

**Packaging**

30 kg can  
280 kg drum  
Container  
Road tanker

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