
Technical Information

October 2001

Construction Products

Sokalan[®] HP 80

Advanced Superplasticizer

Sokalan® HP 80

Nature

Aqueous solution of a modified polycarboxylate.

Properties

Typical Properties

Concentration	%	ca. 40
pH (10% in distilled water)		ca. 7
Viscosity at 73°F (Brookfield RV, Spindle #4 at 100 rpm)	mPa•s	ca. 100
Density	g/cm ³ lbs/gal	ca. 1.10 ca. 9.17
Sensitivity to frost	-18°C/0°F	>5 cycles
Molecular Weight (K value, 1.0% in distilled water)		ca. 30
Appearance		clear or slightly cloudy, reddish liquid

Applications

Fields of application

Sokalan HP 80 is an advanced superplasticizer for use in cementitious systems, particularly "low" or "no" slump mixtures. Sokalan HP 80 imparts excellent workability and slump control in concrete and flow control in mortars. These beneficial properties are maintained over extended periods of time compared to conventional plasticizers, such as sulfonated naphthalene/melamine formaldehyde condensates, where flow properties and workability tend to deteriorate significantly over time.

Significantly lower levels of Sokalan HP 80 (two-thirds less) are generally used compared to conventional superplasticizers. As with all superplasticizers, Sokalan HP 80 enables lower water/cement ratios to be employed, resulting in higher compressive strengths in the cement mix. Note that Sokalan HP 80 has a tendency to yield higher air contents in concrete/mortars, which can be controlled readily with suitable air-detrainers.

Processing

Mix thoroughly before use.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Material Safety Data Sheet

All safety information is provided in the Material Safety Data Sheet for Sokalan HP 80.

Industrial Hygiene

Sokalan HP 80 does not exert any harmful effects provided it is used for the purpose for which it is intended and processed in accordance with current industrial practice. Sokalan HP 80 may contain technically unavoidable traces of volatile organic compounds. Observe appropriate workplace exposure limits when indicated in the Material Safety Data Sheet. Sokalan HP 80 may irritate the skin and mucous membranes on prolonged contact with the product.

Labelling

Sokalan HP 80 is not classified as a hazardous product under DOT or OSHA regulations or as a controlled product under WHIMS (Canada) regulations. It does not contain any hazardous components at levels which have implications for labelling under these regulations.

Storage

Sokalan HP 80 has a shelf life of twelve months, provided it is stored in a cool place and is protected from freezing. Technical information regarding the storage of BASF products is available on request.

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