

## VARIOTITE Retarder

### Properties:

VARIOTITE Retarder is an additional component for three-component, water-expanding hydrogel VARIOTITE.

When using VARIOTITE Retarder in the ready-to-use, activated B component significantly longer reaction times can be adjusted.

### Technical data:

Consistency	liquid	
Colour	yellowish	
Odour	almost odourless	
Spec. density (23°C)	approx. 1.0 g/cm <sup>3</sup>	DIN EN ISO 3675
Dyn. viscosity (23°C)	approx. 1 mPas	DIN EN ISO 2555

### Processing:

The Retarder (1 kg PE bottle) is being emptied fully into a 20 l canister together with the appropriate quantity of B component, then it is filled with water.

The quantity of water must be equal to the quantity of AI and AII component (20 kg AI + 0.5 kg AII). The mixture of water, salt and retarder is being mixed for at least 3 minutes.

For further information please refer to the Technical Data Sheet of VARIOTITE.

Pot-life [min:s] depending on B-amount and temperature when using VARIOTITE Retarder:

30 °C	18:21	08:50	06:25
25 °C	24:02	13:51	09:24
20 °C	32:37	19:52	12:41
15 °C	47:22	36:28	21:57
10 °C	74:34	40:37	26:08
5 °C	90:19	72:20	37:39
	400 g	600 g	800 g

B-amounts [g] based on 20 kg VARIOTITE AI-, 0.5 kg VARIOTITE AII-component and 1 kg VARIOTITE Retarder.

Pot-life was tested in laboratory by using of approximately 200 g of product sample by measuring the increase of viscosity by means of a rheometer. Depending on batch and product amount pot-life may vary considerably. That's why we recommend detecting the actual pot-life on-site before starting the injection work.

### Safety information:

VARIOTITE Retarder is not classified as hazardous according to Regulation (EC) 1272/2008 (CLP).

Even in the case of not classified products, the standard precautionary measures applicable for chemical products should be observed.

It is therefore necessary, before beginning processing, to become familiar with the precautions and safety advice as indicated in the material safety data sheet.

**Packaging:**

1 kg plastic bottle

Bigger packaging on request.

**Storage:**

Shelf life at least 12 month in original packaging when stored in dry conditions between 15-25°C, protected from heat, frost and direct sunlight.

After the expiration the use of the product is generally not recommended, unless an approval has been provided by TPH. This approval can only be obtained by the quality assurance department of TPH releasing the material after verification of main properties being within specification.

**Disposal:**

Small quantities of cured product residues can be disposed of as normal domestic waste. Dispose of not cured product components must be effected in accordance with the corresponding local regulations. For further information please refer to the material safety data sheets.

**Legal notice:**

The correct and thus successful application of our products is not subject to our control. A guarantee can be issued for the quality of our products within the framework of our sales and supply conditions, however not for successful processing. All data and specifications in this specification sheet are based on the present state of the art and the right to changes and adaptations for the sake of development remains explicitly reserved. The consumption specifications designated by us can be only average empirical values, where deviations are possible on an individual basis and therefore cannot be excluded by us.

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