



VIKOPROOF - PRODUCTS FOR SURFACE TECHNOLOGY



VIKOPROOF - SD & VIKOPROOF - SDK ACID PROOF CEMENTS

'VIKOPROOF - SD' and 'VIKOPROOF - SDK' (hereinafter referred to as **Silicate Cements**) acid proof cements have been developed to their present pitch of perfection over more than 25 years. They are special products which have become almost essential when building modern acid proof plants. Their judicious use, often together with 'VIKOPROOF' range of resin based cements makes it possible to resist attack under almost all conditions met with in practice.

'VIKOPROOF' Silicate cements are water glass cements which can be used to fix and point acid proof tiles and bricks when building acid proof plants and buildings.

'VIKOPROOF' Silicate cements are supplied as a two pack system consisting of :

- Inert filler mixed with suitable, catalysts, accelerators, etc.
- Sodium Silicate and Potassium Silicate liquid binder respectively.

MIXING RATIO : 3 parts of powder : 1 part of liquid binder

POT LIFE :- The pot life of silicate cements are given in the following table :

TEMPERATURE IN °C	15	20	30	40
'VIKOPROOF - SD'	40 min.	30min.	20 min.	10 min.
'VIKOPROOF - SDK'	120 min.	40 min.	30 min.	20 min.

The mixed silicate cement mortar must be used for application before its pot life. Any cement left after this time has elapsed must not be used. Any silicate cement not used before the start of hardening cannot be made usable by further addition of silicate liquid. Lower temperature lengthen and higher temperature shorten the setting time

Completely hardened Silicate Cements meets IS4832 Part I. The properties are as follows :

	'VIKOPROOF - SD'	'VIKOPROOF - SDK'
1. Working Time	20 minutes	40 minutes
2. Flexural strength kg/cm ² min.	40	45
3. Compressive strength after 7 days (in kg/cm ²) min.	120	175
4. Bond strength (in kg/cm ²) min.	5	7
5. Temperature Limit °C	800	1000

Method of testing As per IS4456 Part I

Silicate cements cannot be applied directly to foundation of concrete or ordinary cement and therefore an insulating layer must first be applied to such foundations. The concrete or cement surface should be first given a coat of our anti corrosive 'VIKONSEAL - AR' primer. Over the dried, primed surface a intermediate coat of our 'VIKONSEAL - AR' Bitumastic of desired thickness shall be applied.

In case of pressure vessel which must withstand stringent chemical and thermal stresses circulation of acid within the pores of the brickwork is often possible because of applied pressure and vacuum.

In such cases it is necessary to use an insulating interliner which is impervious to liquids between the brickwork & the metal wall. Following interliners are recommended.

- a) Homogenous Lead Lining
- b) Rubber Lining
- c) P.V.C. Lining
- d) Epoxy coating or screeding

Silicate cements must not be mixed with ordinary cement or with other fillers or additives but must be used in their original unadulterated state.

CHEMICAL RESISTANCE :

S.No.	Chemical	VIKOPROOF - SD	VIKOPROOF -SDK
1.	Hydrochloric Acid (conc.)	R	R
2.	Sulphuric Acid (10%)	R	R
3.	Sulphuric Acid (50%)	R	R
4.	Sulphuric Acid (75%)	LR	R
5.	Nitric Acid (conc.)	LR	R
6.	Hydrofluoric Acid (all conc.)	NR	NR
7.	Organic Acids	R	R
8.	Sodium Hydroxide	NR	NR
9.	Sodium Carbonate	NR	NR
10.	Acidic Salts	R	R
11.	Alkaline Salts	NR	NR
12.	Neutral Salts	NR	NR
13.	Hydrocarbons (Aliphatic & Aromatic)	R	R
14.	Alcohol	R	R
15.	Ketones	R	R
16.	Chlorinated Hydrocarbons	R	R
17.	Fats and Oils	R	R

R : Resistant; LR : Limited Resistance; NR : Not Resistant

Advantages of 'VIKOPROOF - SDK' cement over 'VIKOPROOF - SD'

'VIKOPROOF - SDK' Potassium Silicate Cement has advantages over 'VIKOPROOF - SD' Sodium Silicate Cement linings in that the former is not subject to crystal formation in the pores of the cement. Such crystal formation is observed in the later especially where sulphuric acid, acetic acid or phosphoric acid is being used, particularly if the tiles are not continuously rinsed with water.

SHELF LIFE : Silicate cements have indefinite shelf life if stored in proper moist free conditions.

PACKING : Powder : 50 kg packed in haessin Bags with LDPE liner.

Liquid Binder : 17 kg, 35 kg, 50 kg, 250 kg, packed in M.S. Drums. Special packing for liquid can be given as per requirement.

For further details :

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NOTE : All recommendations for use of our products, whether given by us in writing, verbally or to be implemented from the results of tests carried out by us are based on the current state of our knowledge. Although the information contained in this sheet is accurate to the best of our knowledge, noliability can be accepted in respect of such information.