

## Kao-Seal<sup>®</sup>, Kao-Seal AHR Blue Coating

Datasheet Code US: 514-1040

### Product Description

**Kao-Seal** is a water-based coating ideal for use as a dust suppressant to fiber products or for a fiber adhesive.

Kao-Seal can be brushed or sprayed to adhere fiber products to a variety of surfaces including another fiber product, a carbon steel furnace shell, stainless or aluminum foils, and textile products. Kao-Seal becomes ineffective after exposure to temperatures in excess of 212°F. As an adhesive, it is intended to be a process aid and help hold material in place until a mechanical closure or seal can be applied or other higher temperature adhesives can be applied.

When used as a dust suppressant for ceramic fiber products, Kaoseal reduces the tendency for fibers to become airborne before, during, or after a ceramic fiber product is handled or cut. Kao-Seal can effectively reduce dusting and airborne fibers during installation and during tear-out.

**Kaoseal AHR Blue** is a special coating material for use on lightweight castables to help retard the natural occurrence of a serious deteriorating process called alkali hydrolysis (AH). AH is a destructive phenomena that can sometimes occur on lightweight castables (generally below 75 lbs/ft<sup>3</sup>) that have been left in a non-dried state for an extended period of time. Kaoseal AHR Blue is often used in conjunction with Kaolite AHR grade castables to provide extra AHR resistance but it can be used over regular Kaolite castables as well. Besides potentially helping AH resistance, Kaoseal AHR Blue will also reduce the heavy dusting sometimes seen on the castable surface soon after placement called efflorescence.

### Availability

Products	5 gallon pail
Kao-Seal	X

Kaoseal AHR Blue has an added blue pigment to make it easy for identification on the castable surface. It is generally applied very soon after the castable is installed, effectively taking the place of the normally used resin based curing compound. **DO NOT USE IT IN CONJUNCTION WITH A CURING COMPOUND.** This coating can also serve as a curing compound. The best way to install Kaoseal AHR Blue coating is with a power paint sprayer to make a very thin even coat on the castable surface and minimize overspray. Kaoseal AHR coating can also be applied after a partial dry-out has taken place on the castable to provide extra protection against AH occurring.

### Features

- Refractory castable sealants to retard alkali hydrolysis
- Spray sealant/dust suppressant for fiber products
- Adhesive for fiber products

### Handling

Kao-Seal products are ready to use with no thinning. Before using, stir or shake. The products can be applied either by brushing on or with a spray-gun (either a garden sprayer or airless power sprayer type). The airless power sprayer is recommended .

Kao-Seal materials must be protected from freezing to avoid damage. Normal shelf life is minimum 12 months in unopened containers that have been properly stored.

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Morgan Advanced Materials office to obtain current information. This product may be covered by one or more patents or foreign equivalents: A list of patent numbers is available upon request to Morgan Advance Materials plc.

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Kao-Seal AHR Blue	X
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Mastics Product Name	<u>Kao-Seal</u>	<u>Kao-Seal AHR Blue</u>
Fiber Class	RCF	Silica Acid
Material Grade	Coating	Coating
<b>Physical Properties</b>		
Color	clear to opaque white	clear to aqua blue
Classification Temperature, °F	200	-
Classification Temperature, °C	93	-
Solids, %	~45	~25
Viscosity, centipose @ 77°F (25°C)	~ 300	~ 30
pH Level	4.5	10.8
Shelf life, months	12	12
<b>Coverage rate, typical, SF/gal</b>		
refractory sealant against Alkline Hydrolisys	200-300	150-200
dust suppreseant	250-500	-
adhesive	200-300	-
<b>Coverage rate, typical, SM/gal</b>		
refractory sealant against Alkline Hydrolisys	16-29	14-16
dust suppreseant	23-46	-
adhesive	16-29	-
emmissivity, *6.35mm thickness	16-29	-

**NOTE: Avoid Freezing. Freezing will make these products unusable.**

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