

Cobalt free Indicating silica gel

SA-S (NB) · SA (NB)

SA-S (NB) · SA (NB) series is a small packet that uses cobalt free indicating silica gel.

■ Application

Confectionary, Foods, Pharmaceuticals,
Supplements, Chemicals, Electronic device,
Precision machinery

**■ Characteristics****1. Cobalt-free**

It is made of organic compound which is environmentally and biologically safe. It is free from harmful heavy metal unlike conventional indicating silica gel which is made of cobalt chloride.

2. Color change

It changes its color from blue to purple red like conventional indicating silica gel.

3. Wide variety of lineup

It has a wide variety of lineup 1.0g-10g.

4. High price performance**5. Automation**

It can be supplied by automatic pouch distributor.

6. Compact size

There is a compact one (30mm wide) for small package.

7. JIS standard

It conforms to JIS standard^(*1).

■ Color change

It is dark blue under dry condition, as it adsorbs moisture, it changes to purple red. It gradually changes between RH10% and 40%. After it adsorbs moisture up to its limit, it will not desorb under room temperature.

■ Composition (%)

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	CaO	Na ₂ O
99.82	0.01	0.01Max	0.02	0.03

■ Control of toxic substances

Cobalt chloride which is used in conventional indicating silica gel has been restricted since it was designated as carcinogens by EU directive 98/98/EC. Therefore the indicating silica gel made of cobalt chloride mixture has been subject to regulation. In contrast, SA-S (NB) · SA (NB) series is made of safe alternative material (organic pigment), which is according to all the EU regulation.

In Japan, cobalt chloride is designated as "Class 1 designated chemical substance" by the PRTR system (Pollutant Release and Transfer Register). However, the subject to regulation is 1% (percent by weight), and the content of conventional indicating silica gel is less than that, it is exempt from the regulation. It is packaged by PET film that conforms to the packaging requirements of Food Sanitation Law in Japan^(*2).

■ Adsorption capacity

The major components, A-type silica gel has high moisture adsorbing capacity under low humidity condition.

ITEM		SA (NB)	JIS standard
Adsorption Capacity (%)	RH20%	10.0 Min	8.0 Min
	RH50%	25.0 Min	20.0 Min
	RH90%	35.0 Min	30.0 Min
Moisture content (%)		2.5 Max	2.5 Max
pH		4~8	4~8
Specific resistance (Ω · cm)		5,000 Min	3,000 Min

■ Specification**SA-S (NB) series**

Weight	Quantity	Dimension (mm)
1.0g	10,000	30×40

SA (NB) series

Weight	Quantity	Dimension (mm)
2g	4,600	40×55
3g	3,500	50×55
5g	2,500	60×55
10g	1,200	80×55

●Specification can be changed without notification.

●Special dimension is available on customer's request.

(*1) JIS Z0701 Silica gel Desiccants for Packaging

(*2) Specifications, Standards and Testing Methods for Containers and Packaging, 3-D-2, Specifications and Standards for Foods, Food additive (No370-notification of health and Welfare Minister in 1959).

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