

# The Report on Quality Test of the Component and Modification Effect of Silicate-based Surface Penetrant

Name	: CS-21 Neo
Main Component	: Sodium silicate
Manufacturer of the Material	: Aston Inc.
Test Date	: February – May, 2016
Testing Laboratory	: Okayama University
Lot Number Used in the Test	: 01281001

## 1. Quality Items of the Ingredients

Item	Test Standard	Target Value Set by Manufacturer	Test Value
Reactivity with calcium hydroxide	JSCE-K572 6.1	Reactivity exists	Reactivity exists
Dry solid content	JSCE-K572 6.2	15.0 - 20.0 %	15.9 %
Type	JSCE-K572 6.3	Reactive	Reactive
Specific gravity (Density)	JIS K2249	1.10 - 1.14 (g/cm <sup>3</sup> )	1.12 (g/cm <sup>3</sup> )
pH value	JIS K0102-12.1	11.0 - 13.0	11.8
Appearance (color)	Company Standard (Visual test)	Colorless and transparent No foreign bodies	Colorless and transparent No foreign bodies

## 2. Application Specifications in Quality Assessment Test on Modification Effect

Water content of the mortar board before application	5.5 % (Moisture Meter HI-520 manufactured by Kett Electric Laboratory)
Application method	Brushing
Number of application	Once
Recoating interval	—
Application quantity	200 g/m <sup>2</sup>
Dry solid content in the application quantity (Application quantity x dry solid content)	31.8 g/m <sup>2</sup>
Curing method after application and the term	Conformed to JSCE-K572

## 3. Quality Item on the Appearance Change after Application

Item	Test Standard	Test Results
Appearance change after application	JSCE-K572 6.4	There is no change in the appearance through penetration.

## 4. Quality Item on Penetrating Ability

Item	Test Standard	Test Value
Penetration depth of surface penetrant	JSCE-K572 6.5	4.2 mm

## 5. Quality Item on Renovation Effect

Item	Test Standard	Test Value
Water absorption ratio	JSCE-K572 6.7	66 %
Neutralization depth ratio	JSCE-K572 6.8	84 %
Chloride ions penetration depth ratio	JSCE-K572 6.9	84 %
Mass loss rate	JSCE-K572 6.10	38.62 %

We hereby certify that the quality test results concerning the component and the modifying effect are as described above.

Date:

**Aston Inc.**

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