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**BUILDING MATERIALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

JC/T 973-2005

**Natural stone protector for building decoration
(English Translation)**

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1 Scope

This standard specifies the terms and definitions, classification and naming marks, technical requirements, test methods, inspection rules, marking, packaging, storage and transportation, safe coating and protection of natural stone protectors.

This standard applies to the natural stone protector for building decoration.

2 Normative references

The provisions in following documents become the provisions of this standard through reference in this standard. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this standard;

however, parties who reach an agreement based on this standard are encouraged to study if the latest versions of these documents are applicable.

For undated references, the latest edition of the referenced document applies.

GB 3186 Sampling paint products

GB/T 9966.3-2001 Test methods for natural facing stones - Part 3: Test methods for bulk density, true density, true porosity and water absorption

GB/T 13890 Terms for natural facing stone

GB 18581 Indoor decorating and refurbishing materials - Limit of harmful substances of solvent based coatings for woodenware

GB 18582 Indoor decorating and refurbishing materials - Limit of harmful substances of interior architectural coatings

JC/T 902 Silicone hydrophobic agent for construction surfaces

3 Terms and definitions

The terms and definitions as established by GB/T 13890 as well as the following terms and definitions apply to this standard.

3.1

6 Test methods

6.1

pH

Use a precision pH test paper to make determination.

6.2 Stability

Take two sets of 10 mL of sample. Respectively put it into two test tubes. Place them on opposite sides of the electric centrifuge. Rotate it at 3000 r/min for 5 min. Take out the test tube, to see if there is delamination, floating oil, precipitation.

6.3 Waterproofness

See Appendix A.

6.4 Stain resistance

See Appendix B.

6.5 Reduction rate of cement's bond strength

See Appendix C.

6.6 Acid resistance

See Appendix D.

6.7 Alkali resistance

See Appendix E.

6.8 UV-aging resistance

See Appendix F.

6.9 Impermeability

Flatly place the five 150 mm x 150 mm x 20 mm stones, whose bottom and four sides are protected according to A.3.1 to A.3.3 in Appendix A, in the top of a container (wide-edge box which has a volume of 160 mm x 160 mm x 25 mm, lined with 240 mm x 240 mm plastic film) which contains cement mortar (cement and sand are prepared in the proportion of 1:2.5 by the use of water). Make its bottom face downwards. Allow the cement mortar to reach about 1/2 of the stone's thickness. Use plastic tape to seal the exposed part at the sides of stone and the periphery of the container. Let it be standing for seven days. At the interval of one day, observe the color change and the presence of water mark

7.2.1 Inspection items

All the items in clause 5 of technical requirements.

7.2.2 Inspection conditions

In one of the following cases, carry out type inspection:

- a) When the new product is initially type-finalized;
- b) When there is a major change in product's formulation, process, raw materials;
- c) When the production is restored after suspension for more than half a year;
- d) Once a year during normal production;
- e) When the national quality supervision agency proposes to carry out type inspection requirements.

7.2.3 2 Group-batch

Same as exit-factory inspection.

7.2.4 Sampling

Same as exit-factory inspection.

7.2.5 Determination

If one of the test results does not meet the requirements of clause 5, the batch of products is judged to be unqualified.

8 Marking, packaging, storage, transportation

The marking, packaging, storage, transportation of the product shall be in accordance with the provisions of clause 7 of JC/T 902.

9.1 When applying coating, try to choose the brushing method and carry it

outdoors. If it is indoors, it must be well ventilated.

9.2 When applying coating, the construction personnel shall wear the necessary protective equipment.

Appendix A (Normative)

Test method of waterproofness

A.1 Equipment and appliances.

A.1.1 Drying oven: The temperature can be controlled within the range of 60 °C $\pm$ 2 °C.

A.1.2 Balance: The maximum weighing is 1000 g. The sensitivity is 10 mg.

A.1.3 Dryer.

A.2 Specimen

Take 14 pieces of natural stone sample of 100 mm x 100 mm x 20 mm (it is recommended to use the G3503 natural granite).

A.3.1 Prepare the protector according to the protector's instruction manual or

the requirements of the entrusting organization.

A.3.2 Use 0.25 mm silicon carbide sand to grind the six sides of the specimen smoothly. Use clean water to rinse it. Place it in a drying oven at 60 °C $\pm$ 2 °C to dry it for 48 h. Take it out. Place it in a desiccator to cool it to room temperature.

Store 5 of them in a desiccator as control samples. Take the other 9 of them as test samples.

A.3.3 Take 9 test samples. Use a brush which is fully coated with protector to apply uniform coating for the six surfaces of the test sample. Flatly place it in a porcelain plate which is