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

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**Sodium bentonite geosynthetic clay liner
(English Translation)**

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Foreword

Sodium bentonite waterproof blanket is a new type of geosynthetic material, which is mainly divided into acupuncture sodium-based bentonite waterproof blanket and acupuncture-coated sodium.

Base bentonite waterproof blanket and adhesive method sodium bentonite waterproof blanket.

Appendix A and Appendix B of this standard are normative appendices, and Appendix A is equivalent to the American Society for Testing and Materials Standard ASTM.

Test method in D5084-1990.

This standard was proposed by the Institute of Standards and Ratings of the Ministry of Construction.

This standard is under the jurisdiction of the China Academy of Building Research, the standard of construction engineering standard technology of the Ministry of Construction.

This standard is edited by Beijing Boke Construction Chemical Materials Co., Ltd. and National Building Materials Testing Center. Jiejie Hi-Tech (Suzhou) Co., Ltd.

Division, Yixing Nonwoven Fabric Factory, Tianjin Kerun Huida Nonwoven Fabric Co., Ltd., Liaoning Saite Waterproof Technology Development Co., Ltd., China Railways Division the Institute of Metals and Chemistry of the Institute, the Research and Development Center of China Materials Group and Tianjin Xingrong Nonwovens Co., Ltd. participated in the preparation.

1 Scope

This standard specifies the product classification and marking, requirements, test methods, inspection rules, marking, packaging, storage and transportation of sodium bentonite waterproof blanket.

Transportation, etc.

This standard is applicable to waterproof and anti-seepage projects in subways, tunnels, artificial lakes, landfills, airports, water conservancy, roads and bridges, buildings, etc.

A sodium-based bentonite waterproof blanket (referred to as GCL) produced by acupuncture, needle-punching or gluing method using sodium bentonite as a main raw material.

This standard does not apply to waterproof and anti-seepage projects with high concentration electrolyte solution.

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if it is possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

GB/T 2791 Adhesive T peel strength test method Flexible material for flexible materials
GB/T 4667 woven fabric width measurement GB/T 13760 geotextile sampling and sample preparation GB/T 15788 geotextile tensile test method wide strip method GB/T 17643 geosynthetics polyethylene geomembrane GB/T 17690 geosynthetics plastic flat wire woven geotextile JC/T 593 Bentonite Test Method

3.1.1 Classification by product type

3.1.1.1

Acupuncture method Sodium bentonite waterproof blanket is a blanket material made of two layers of geotextile wrapped sodium-based bentonite particles, as shown in the figure.

1(a). Expressed by GCL-NP.

3.1.1.2

Acupuncture and filming method The sodium-based bentonite waterproof blanket is compounded on the outer surface of the non-woven geotextile of the needle-punched sodium-based bentonite waterproof blanket.

A layer of high density polyethylene film, as shown in Figure 1 (b). Expressed by GCL-OF.

3.1.1.3

Adhesive method Sodium bentonite waterproof blanket is made by bonding bentonite particles to high density polyethylene board with adhesive and compressing production.

A sodium bentonite waterproof blanket, as shown in Figure 1 (c). Expressed by GCL-AH.

Figure 1 Sodium bentonite waterproof blanket

3.1.2 Classification by bentonite

3.1.2.1

Artificial sodiumated bentonite is indicated by A.