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

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Pretensioned spun concrete special-shaped piles
(English Translation)

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Foreword

This standard 6.1.1, 6.1.3, 6.4, 6.5 are mandatory, the rest are recommended.

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

The standard proposed by China Building Materials Federation.

This standard by the National Standardization Technical Committee cement products (SAC/TC197) centralized.

1 Scope

This standard specifies the terms and definitions of pre-tensioned prestressed concrete shaped centrifugal piles, product classification, raw materials and general requirements, technical Requirements, test methods, inspection rules, marking, storage and transportation, product certification and so on.

This standard applies to industrial and civil buildings, ports, municipal, bridges, railways, highways, water conservancy projects and foundation treatment and temporary facilities such as the use of pre-tensioned prestressed concrete centrifugal shaped piles.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 175 Common Portland Cement GB/T 700-2006 carbon structural steel GB/T 701 low carbon steel hot rods GB 1499.2 steel reinforced concrete - Part 2. Hot rolled ribbed bars GB/T 1596-2005 for fly ash cement and concrete GB/T 5223.3-2005 prestressed concrete steel bar GB 8076 concrete admixture GB 13476-2009 pre-tensioned Prestressed Concrete Piles GB/T 14684 construction sand GB/T 14685 construction with gravel, crushed stone GB/T 18046-2008 for cement and concrete granulated blast furnace slag powder GB/T 18736-2002 high performance concrete with mineral admixtures GB/T 50081 mechanical properties of ordinary concrete test method standards GB 50107 Concrete Strength Inspection and Evaluation Standards GB 50153-2008 engineering structure reliability design of uniform standards GB 50164 concrete quality control standards JC/T 540 concrete products cold drawn low carbon steel wire JC/T 947 pre-tensioned prestressed concrete pile end plates JC/T 950-2005 Prestressed Concrete Piles of silica sand powder JGJ63 concrete water standards

3 Terms and Definitions

The following terms and definitions apply to this document.

Pile cross-sectional outer contour of a non-circular, square or non-uniform cross section of the longitudinal direction of the non-centrifugal molding process of pre-tensioned prestressed mix Concrete pile (hereinafter referred to as shaped piles, see Figure 1).

- a) bamboo pile
- b) ribbed bamboo pile
- c) octagonal pile
- d) hexagonal pile
- e) expanding pile head Explanation.

D --- nominal diameter;

D_j --- bamboo outer diameter;

D_g --- expanding the outer diameter of the head;

t --- wall thickness;

L --- length;

Lg --- expanding head length;

s --- from bamboo;

bjt --- bamboo top width;

bjb --- bamboo bottom width;

hj --- bamboo height;

brt --- longitudinal rib top width;

brb --- longitudinal rib bottom width;

hr --- longitudinal rib height.

Figure 1 a schematic outline shaped pile

Pre-tensioned prestressed concrete centrifugal bamboo pile

pretensionedspunconcreteteknotpiles Pile axial direction at equal intervals bamboo-shaped (annular) projections of circular cross-section of the centrifugal molding process of pre-tensioned prestressed concrete pile [Hereinafter referred to as bamboo piles, see Figure 1a)].

Pre-tensioned prestressed concrete ribbed bamboo pile centrifugal

pretensionedspunconcreteribbedknotpiles Pile with a longitudinal rib-like projections bamboo pile [hereinafter referred to as ribbed bamboo piles, see Figure 1b)].

Pre-tensioned prestressed concrete octagonal pile centrifugal

pretensionedspunconcreteoctagonalpiles Pile cross-sectional outer contour of a centrifugal process octagonal shaped pre-tensioned prestressed concrete piles [hereinafter referred to as the octagonal piles, see Figure 1c)].

Pre-tensioned prestressed concrete centrifugal hexagonal pile

pretensionedspunconcretehexagonalpiles Pile cross-sectional outer contour of a centrifugal process hexagonal shaped pre-tensioned prestressed concrete piles [hereinafter referred to as hexagonal piles, see Fig.

Pre-tensioned prestressed concrete centrifugal expansion pile head

pretensionedspunconcretesteptaperedpiles A terminal end diameter larger centrifugal molding process of pre-tensioned prestressed concrete piles [hereinafter referred to as enlarged pile head, see Figure 1e)].

Nominal diameter Shaped pile cross-sectional outer contour of the inscribed circle diameter (see Figure 1 size D), the outer diameter of the circular cross-section is the pile.

4.1 Product variety and code

Shaped by piles of prestressed concrete strength class is divided into centrifugal shaped concrete piles and prestressed high strength concrete centrifugal shaped piles.

Shaped outer contour shape into piles by bamboo pile (Code KPC, KPHC), ribbed bamboo pile (code RKPC, RKPHC), star anise pile (Code OPC, OPHC), hexagonal pile (code HPC, HPHC), expansion pile head (Code STPC, STPHC) and the like.

4.2 Product specifications and models

4.2.1

shaped into piles according to the nominal diameter of 300mm, 400mm, 500mm, 600mm, 700mm, 800mm, 900mm, 1000mm, 1100mm, 1200mm and other specifications.

4.2.2

pile shaped by effective pre-stress concrete value divided into A, AB, B type and C-type. Type A, AB, B type and C-type shaped Effective preload stress concrete piles were 4.0N/mm², 6.0N/mm², 8.0N/mm² and 10.0N/mm², the calculated value is not it should be less than 95% of the specified values.

Note: Calculation method shaped pile of concrete and effective pre-stress values refer to Appendix D GB 13476-2009 provisions, pile concrete cross-sectional area according to the nominal straight the actual site area path calculation.

4.3 Size of

4.3.1 basic dimensions shaped piles shall conform to Table 1, the length L is an integer multiple of 1m, the shape of the structure shown in Figure 1.

4.3.2 The length of piles include pile and fittings, without additional accessories.

Table of basic dimensions of a 1-shaped pile

Nominal diameter D

model

The thickness t

Length L

70 ≤ 11

110 ≤ 15

Nominal diameter D

model