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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 19675.1-2023

Reinforced flexible graphite gaskets for pipe flanges - Part 1: PN designated

管法兰用柔性石墨复合增强垫片 第1部分：PN系列

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Foreword

This document was issued on 7 September 2023 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 April 2024.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 23.040.60, Chinese classification J15.

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1.Structure and Drafting Rules of Standardization Documents"

Drafting.

This document is Part 1 of GB/T 19675 "Flexible graphite composite reinforced gaskets for pipe flanges". GB/T 19675 has been released

The following parts.

---Part 1.PN series;

---Part 2.Class Series.

This document partially replaces GB/T 19675.1-2005 "Dimensions of metal punched tooth plates and flexible graphite composite gaskets for pipe flanges" and

GB/T 19675.2-2005 "Technical Conditions for Metal Punch Tooth Plate Flexible Graphite Composite Gaskets for Pipe Flanges". With GB/T 19675.1-

Compared with.2005 and GB/T 19675.1-2005, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Changed the scope of application (see Chapter 1, Chapter 1 of GB/T 19675.1-2005);

b) Added gasket types and requirements (see Chapter 4);

c) Added process requirements for gasket production (see 5.2);

d) Added dimensions for reinforced gaskets with bolt holes for flat flanges (see Table 3);

e) Added the dimensions of flat ring reinforced gaskets for DN10~DN400 and PN63 raised face flanges (see Table 4);

f) Added DN700~DN2000, PN10; DN700~DN2000, PN16; DN700~DN1000, PN25 and

Dimensions of flat ring reinforced gaskets for DN10~DN400, PN63 concave and convex flanges and tongue and groove flanges (see Table 5 and Table 6);

g) Changed the dimensional limit deviation of gaskets (see Table 7 and Table 8, Table 1 and Table 2 of GB/T 19675.2-2005);

h) Changed the performance requirements of gaskets (see 6.4, 3.4 of GB/T 19675.2-2005);

i) The marking method of gaskets has been changed (see 9.1, Chapter 5 of GB/T 19675.1-2005);

j) Added storage period and related regulations (see 9.4.3).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

This document is proposed by China Machinery Industry Federation.

This document is under the jurisdiction of the National Technical Committee on Standardization of Pipe Accessories (SAC/TC237).

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The previous versions of this document and the documents it replaces are as follows.

---First released in.2005 as GB/T 19675.1-2005, GB/T 19675.2-2005;

---This is the first revision.

Introduction

Flexible graphite composite reinforced gasket is a commonly used sealing gasket in

industrial fluid equipment and pipeline flange connections. GB/T 19675.1-

2005 "Dimensions of flexible graphite composite gaskets for metal punched tooth plates for pipe flanges" and GB/T 19675.2-2005 "Flexible metal punched tooth plates for pipe flanges"

It has been more than ten years since the release and implementation of the "Technical Conditions for Flexible Graphite Composite Gaskets". During this period, with the update and improvement of gasket production technology, the operating conditions and environment

The diversified development, and the pipe flange standard adapted to it has been revised twice. Therefore, in order to comply with the current pipe flange standard PN and

The two series of Class are compatible, and the standards of flexible graphite composite reinforced gaskets are also divided into PN series and Class series accordingly.

GB/T 19675 aims to establish the necessary requirements for the design, manufacturing, performance and selection of flexible graphite composite reinforced gaskets. It is planned to be composed of two parts

composition.

---Part 1.PN series. The purpose is to establish the specifications, dimensions and technical requirements of PN series flexible graphite composite reinforced gaskets.

---Part 2.Class Series. The purpose is to establish the specifications, dimensions and technology of Class series flexible graphite composite reinforced gaskets

Require.

Flexible graphite composite reinforced gasket for pipe flange

Part 1.PN Series

1 Scope

GB/T 19675.1-2023 covers the flexible graphite gasket carried on a metal reinforcement, for pipe flanges of the PN series, over nominal pressures PN2.5 to PN63 and nominal sizes DN10 to DN2000. It divides the product by the form of that reinforcement, into a metal toothed plate composite and a metal flat plate composite, and gives each a code, then works through the materials and workmanship, the requirements, the inspection methods and the inspection rules. No terms are defined; the requirements clause is the body of the document, running from page four to page eleven. A gasket is the cheapest part of a flanged joint and the one that decides whether the joint leaks. Graphite seals well but has little strength of its own, so it is built onto a metal insert, and the way that insert is formed and bonded governs whether the gasket survives handling, bolting up and service. Types,

codes and dimensions that the gasket maker and the flange designer read the same way are what let a replacement gasket fit a flange already in the ground. Part 1 of the GB/T 19675 series, written for gasket manufacturers, piping designers and plant maintenance engineers.

This document specifies the types and codes, materials and processes, requirements, and inspections of flexible graphite composite reinforced gaskets for PN-marked pipe flanges.

Methods, inspection rules, marking, marking, packaging, transportation and storage.

This document is applicable to flexible graphite composite pipe flanges with nominal pressures PN2.5~PN63 and nominal sizes DN10~DN2000.

Reinforced gasket.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 2520 Cold-rolled electro-tin-plated steel plates and steel strips

GB/T 3280 Stainless steel cold-rolled steel plates and strips

GB/T 12385-2008 Gasket sealing performance test method for pipe flanges

GB/T 12622-2008 Test method for compression rate and rebound rate of gaskets for pipe flanges

JB/T 6628 Flexible graphite composite reinforced (plate) pad

3 Terms and definitions

There are no terms or definitions to be defined in this document.

4 Type and code

4.1 Type

4.1.1 Flexible graphite composite reinforced gaskets (hereinafter referred to as "reinforced gaskets") are divided into metal tooth plate composite and metal flat gaskets according to the type of composite reinforcement.