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

GB/T 19066.1-2020

Replacing GB/T 19066.1-2008

**Composite wave-serrated metal gaskets for pipe flanges Part 1:
PN designated**

管法兰用金属波齿复合垫片 第1部分：PN系列

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Foreword

GB/T 19066 "Metal Corrugated Composite Gasket for Pipe Flange" is divided into two parts.

---Part 1: PN series;

2. Class series. This part is Part 1 of GB/T 19066. This section was drafted in accordance with the rules given in GB/T 1.1-2009. This part replaces GB/T 19066.1-2008 "Flexible Graphite Metal Corrugated Composite Gasket Dimensions" and GB/T 19066.3-2003 "Technical Conditions for Flexible Graphite Metal Corrugated Composite Gaskets", which is consistent with GB/T 19066.1-2008 and GB/T 19066.3-2003. The main technical changes are as follows:

---The scope of application of gaskets has deleted the Class series (see Chapter 1 of GB/T 19066.1-2008);

---Modified the gasket size of PN series (see Chapter 4, Chapter 3 of GB/T 19066.1-2008);

--- Deleted the gasket size of the Class series (see Chapter 3 of GB/T 19066.1-2008);

---Add some commonly used metal framework materials and regulate the use temperature, and increase the requirements of commonly used materials for the covering layer (see 5.1);

---The recommended value content of the metal frame structure parameter has been added, and the limit deviation of the relevant size of the metal frame has been revised (see 5.2, Chapter 3 of GB/T 19066.3-2003);

---Modified gasket process requirements (see 5.2, Chapter 3 of GB/T 19066.3-2003);

--- Deleted the requirements for gaskets with split spacers (see

3.1.6 of GB/T 19066.3-2003);

---Modified the limit deviation of the inner and outer diameters and thickness dimensions (see 5.3, GB/T 19066.3-2003, 3.1.5, 3.2.3);

---Modified performance indicators and inspection methods (see 5.4, Chapter 6, GB/T 19066.3-2003, Chapter 4, Chapter 5);

---Added the regulations on covering material and color identification in the marking (see Chapter 8). This part was proposed by China Machinery Industry Federation. This part is under the jurisdiction of the National Pipeline Accessories Standardization Technical Committee (SAC/TC237). Drafting organizations of this section. Zhejiang Guotai Xiaoxing Sealing Materials Co., Ltd., China Machinery Productivity Promotion Center, Guangzhou Dongshan South Seals Co., Ltd., East China University of Science and Technology, Ningbo Tiansheng Seals Co., Ltd., Wuxi Xixi Chemical Machinery Parts Co., Ltd., Wuxi Shunkeshi Chemical General Parts Co., Ltd. The main drafters of this section. Wu Yimin, Feng Feng, Wu Kaijun, Zhang Jiahong, Wu Shuji, Zhang Lanzhu, Qiu Kuanheng, Hui Fuming, Zhu Xiaoping. The previous versions of the standards replaced by this part are as follows:

1 Scope

GB/T 19066.1-2020 is the Chinese national standard on composite wave-serrated metal gaskets for pipe flangespart 1: pn designated, in the field of fluid systems and general-purpose components. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 19 November 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2021. Classification: ICS 23.040.60, CCS J15. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 19066 specifies the type of metal corrugated composite gaskets for pipe flanges (hereinafter referred to as "corrugated gaskets") marked by PN. Type and code, size, technical requirements, inspection methods, inspection rules, marking, marking, packaging, transportation and storage. This section applies to corrugated gaskets with a nominal pressure of PN10~PN250 and a nominal size of DN10~DN2000.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 2054 Nickel and nickel alloy plate

GB/T 3274 Carbon structural steel and low-alloy structural steel hot-rolled steel plate and steel strip

GB/T 3280 Cold rolled stainless steel plate and strip

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

GB/T 12622-2008 Gasket compression rate and rebound rate test method for pipe flanges

JB/T 7758.2 Technical conditions of flexible graphite board

3.1 Type

3.1.1 Basic corrugated gasket The basic wave-tooth gasket is suitable for tongue-groove and concave-convex flanges. The structure type is shown in Figure 1. Description. D2

---inner diameter; D3

---outer diameter; t

---the thickness of the metal frame; T

--- overall thickness; 1

---Metal skeleton; 2

--- Covering layer. Figure