

Shipbuilding – Piping system in machinery space – Application for gaskets and packings

1. Scope This Japanese Industrial Standard specifies application standard of gaskets and packings used for pipe flanges, pipe joints, valve bonnets, valve stems and the like of piping system for machinery space of ship.

Remark: This standard makes reference to the following standards:

JIS B 2202 – Pipe flange gasket seat dimensions

JIS B 2220 – Steel welding pipe flanges

JIS B 2401 – O-rings

2. Classification Gaskets shall be classified as given in **Table 1**. Packing shall be classified as given in **Table 2**. O-rings shall comply with **JIS B 2401**.

3. Application standard This standard shall be as given in **Tables 3 to 5**. The gaskets and packings shall have suitable characteristics and durability for using condition.

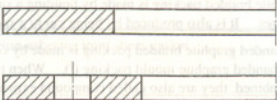
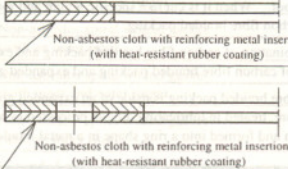
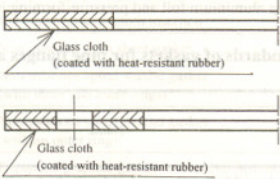
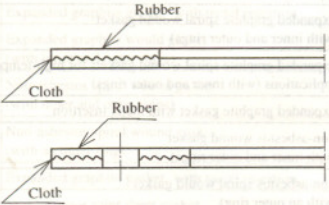
Remark: The dimensions of gasket for pipe flanges are recommended to conform to the reference dimensions specified in **JIS B 2202**.

Glass cloth gasket	GK		
Metal flange gasket (metallic)	GK		
Metal flange gasket (non-metallic)	GK		
Note (*) 1	GK		
A reinforced gasket shall be used between expanded graphite gaskets.	GK		
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Table 1 Classes of gasket

Name	Symbol	Sectional shape (*)	Contents
Expanded graphite spiral wound gaskets for high-temperature applications (with inner and outer rings)	KKUD	Outer ring Inner ring Expanded graphite tape Male-female metallic hoop Non-asbestos tape	Male-female metallic hoops, expanded graphite tapes and non-asbestos tapes are spirally wound and fitted with inner and outer rings. To prevent expanded graphite materials from oxidizing in the air (oxygen), there are two types - one is provided with an expanded graphite tape on the inner side and a non-asbestos tape on the out side, and the other is provided with non-asbestos inner and outer tapes and expanded graphite tapes at the middle.
Expanded graphite spiral wound gasket (with inner and outer rings)	KUD	Outer ring Inner ring Expanded graphite tape Male-female metallic hoop	Male-female metallic hoops and expanded graphite tapes are spirally wound and fitted with inner and outer rings.
Non-asbestos spiral wound gasket (with inner and outer rings)	HUD	Outer ring Inner ring Non-asbestos tape Male-female metallic hoop	Male-female metallic hoops and non-asbestos tapes are spirally wound and fitted with inner and outer rings.
Non-asbestos spiral gasket (with an outer ring)	HUC	Outer ring Non-asbestos tape Male-female metallic hoop	Male-female metallic hoops and non-asbestos tapes are spirally wound and fitted with an outer ring.
Expanded graphite gasket with metal insertion	MK	Expanded graphite sheet Reinforcing plate	A reinforcing metal plate sandwiched between expanded graphite sheets, which are cut to specified dimensions.

Table 1 (cont'd)

Name	Symbol	Sectional shape (1)	Contents
Non-asbestos joint sheet gasket	HJ		Non-asbestos joint sheet gaskets are manufactured from a mixture of non-asbestos fibres and rubber compound, compressed in a hot rolling process, formed into sheets and cut to specified dimensions.
Cloth gasket with reinforcing metal insertion	KHK		Non-asbestos cloth with reinforcing metal insertion is manufactured from heat-resistant non-asbestos cloth with reinforcing metal insertion applied with heat-resistant rubber coating, either in tapes or in sheets cut to specified dimensions.
Glass cloth gasket	GK		Glass cloth gasket is manufactured from glass cloth with resistant rubber coating, either in tapes or in sheets cut to specified dimensions.
Cloth-insertion rubber sheet gasket	NG		Cloth-insertion rubber sheet are manufactured with two rubber sheets and cloth insertion, which is placed between them. The rubber content shall be 30% or more.

Note (1): Sectional shapes are shown for reference only.