

TYPE EXAMINATION CERTIFICATE

This is to certify:**That the Gaskets and Sealings**with type designation(s)
FLAT GASKETS, Type TESNIT BA-U and TESNIT BA-50

Issued to

Donit Tesnit, d.o.o.
Medvode, Slovenia

is found to comply with

DIN 52913
DIN 28090
DIN 3535-6
ASTM F152
ASTM F36**Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.****Temperature range:****Max. working press.:** see certificate and manufacturer's instruction**Design:****Sizes:**Issued at **Hamburg** on **2018-11-15**This Certificate is valid until **2023-11-14**.DNV GL local station: **Koper**Approval Engineer: **Guido Friederich**for **DNV GL**

Digitally Signed By: Drews, Olaf

Location: DNV GL SE Hamburg, Germany

Signing Date: 2018-11-14

Olaf Drews
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Examination Certificate and not to the approval of equipment/systems installed.



Product description

Flat gasket material consisting of aramid fibers, inorganic fillers and NBR binder.

TESNIT BA-U and BA-50

Technical data	Standard	BA-U	BA-50	Unit
Thickness range		0,5 up to 3,0		mm
Colour		Blue	Light green	
Density	DIN 28090-2	1,7	1,8	g/cm ³
Compressibility	ASTM F36J	11	9	%
Recovery	ASTM F36J	60	55	%
Tensile strength	ASTM F152	10	11	N/mm ²
Stress resistance	DIN 52913 at 175°C	27	25	N/mm ²
Stress resistance	DIN 52913 at 300°C	23	--	N/mm ²
Permeability	DIN 3535-6	0,02	0,07	mg/(s·m)

Note ¹ :

Application

The above listed gasket material sheet type may be used under consideration of the mechanical and technical characteristics as well as physical and chemical properties for the following applications:

- Ship's piping systems, pressurized items and machinery containing e.g. the following fluids: non flammable gases, oil, fuel oil, water.

¹ The selection of the gaskets for the corresponding application and appropriate installation has to be in accordance with the instructions of the manufacturer.

Limitation / Exclusions

- Pipe lines for LNG and flammable gas systems, cryogenic fluids, cargo lines on chemical and gas tankers carrying flammable and/or noxious media, propylene oxide and mixtures of ethylene and propylene oxide.
- Steam lines

Type Examination and test documentation

ESG Certificate for Identification of asbestos fibres - Analysis report no. B53867, dated 2011-06-10
CTI Test Report No. NLSH 130 70 214 78 601, dated 2013-07-10, for asbestos-free content acc. to IMO Res. MEPC 197(62)

Donit laboratory test protocols for testing materials BA-U and BA-50, dated 2013-07-30

Manufacturer's confirmation / declaration for asbestos-free content, doc.no. 05-2014

DIN DVGW type examination certificate NG-5123BL0583, dated 2016-02-24

TZW Karlsruhe Prüfstelle Wasser – Prüfzeugnis KA 007B/17 (und KA 007A/17 und KA 299/16), dated 2017-07-13

TZW Karlsruhe Prüfstelle Wasser – Prüfzeugnis KA 006B/17 (und KA 006A/17 und KA 360/16), dated 2017-07-13

DVGW type examination certificate DG-5126BQ0407, dated 2017-04-10

DIN DVGW type examination certificate NG-5123AS0441, dated 2017-06-30

ISO 9001 2015; ISO 14001 2015: - Cert. Reg.No. 12 100/104 7202, TMS/TÜV Süd

Specification TESNIT BA-U and BA-50

DNV GL Type Approval Assessment Report, dated 2018-08-22

Job Id: **262.1-028369-1**
Certificate No: **TAP00001EN**

Marking of product

The flat gasket shall be clearly marked with the following minimum signs:

- Manufacturer's name / label
- Gasket sheet material non asbestos
- Product type

Certificate Retention Survey

A condition for retention of the Type Approval Certificate in its validity period is that periodical assessments are successfully carried out.

The objective of the periodical assessment is to verify that the conditions for the type approval have not been altered.

- The main scope of the periodical assessment will normally include:
- Verification of the TA applicant's production and quality system w.r.t ensuring continued consistent production of the type approved products at the TA applicant's own premises and at other companies that are given the responsibility for manufacturing of the products.
- Review of the TA documentation and that this is still used as a basis for the production
- Review of possible changes to the design, the material and the performance of the product
- Verification of the product marking

END OF CERTIFICATE