



## Confirmation of Product Type Approval

**Company Name:** TRELLEBORG IZARRA SAU

**Address:** C/ SAN VICENTE, 23 01440 Spain

**Product:** Expansion Joint, Rubber

**Model(s):** Teguflex P, Teguflex P HP and Teguflex P HO

<b>Certificate Type</b>	<b>Certificate Number</b>	<b>Issue Date</b>	<b>Expiry Date</b>
Product Design Assessment (PDA)	20-2043076-PDA	02-NOV-2020	01-NOV-2025
Manufacturing Assessment (MA)	20-4197387	13-MAR-2020	12-MAR-2025
Product Quality Assurance (PQA)	NA	NA	NA

### **Tier**

3

### **Intended Service**

Teguflex P (Yellow): Fresh/Sea water, lubricating oil, fuel oil, alkalis, compressed air, sanitary; Teguflex P (Red): Fresh/Sea water, alkalis, sanitary; Teguflex P (Green): Strong and concentrated acids; Teguflex P HP: Hot water, steam, air; Teguflex P HO: Oils, water/oils, compressed air/oils

### **Description**

Rubber Compensators spherical shaped with synthetic cord reinforcement. Equipped with loose flanges of carbon steel or stainless steel.

Teguflex P (Red):

Inner Tube: EPDM;

Reinforcement: Nylon Cord

Outer Tube: EPDM

Teguflex P (Yellow):

Inner Tube: Epichlorohydrin (ECO)

Reinforcement: Nylon Cord

Outer Tube: ECO

Teguflex P (Green):

Inner Tube: CSM

Reinforcement: Nylon Cord

Outer Tube: Chloroprene

Teguflex P HP (Double Red):

Inner Tube: EPDM HP

Reinforcement: Aramide

Outer Tube: EPDM HP

Teguflex P HO (Double Yellow)

Inner Tube: HNBR

Reinforcement: Aramid

Outer Tube: HNBR

### **Ratings**

Temperature Range:

Teguflex P (Red): - 35 to +90 Deg C

Teguflex P (Yellow): - 25 to +90 Deg C

Teguflex P (Green): - 25 to +90 Deg C

Teguflex P HP (Double Red): -35 to +130 Deg C

Teguflex P HO (Double Yellow): -25 Deg C to +120 Deg C

Maximum Working Pressure:

Teguflex P: For Sizes DN 25- DN 300:16 bar at 70 Deg C and 10 bar at 90 deg C.

Teguflex P HP: For Sizes up to DN 150: 16 bar up to 100 Deg C and 10 bar at 130 deg C.

Teguflex P HP: For Sizes DN 200 & above: 10 bar up to 100 Deg C and 6 bar at 130 Deg C.

Teguflex P HO: For Sizes up to DN 150: 10 bar up to 120 Deg C, 16 bar up to 90 Deg C and for Sizes above DN 150: 6 bar up to 120 Deg C, 10 bar up to 90 Deg C.

Size Range:

DN25 to DN 300

### **Service Restrictions**

- 1) The suitability of the subject expansion joints for use in piping systems conveying chemicals will be carried out on a case by case basis for application on ABS Classed Vessels.
- 2) Where the expansion joints are used in oil piping systems (fuel, lubricating or hydraulic oil), the expansion joints are to be used together with duly tested flame guards.
- 3) Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including

inspection standards and tolerances, must be clearly defined.

### Comments

- 1) The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2) Expansion joints are to be installed in accordance with manufacturer's recommendations and 4-6-2/9.5 of the ABS Marine Vessel Rules.
- 3) Expansion joints are to be permanently marked with the manufacturer's name and the month and year of manufacture

### Notes, Drawings and Documentation

- 1) Report Number 7164-T-07-B01, Trelleborg Expansion Joints - Burst Test of 11-March- 2003
- 2) Test Report 24130 – ASTM D 471 – HNBR for HO Expansion joints dated 01-June-2015
- 3) Document Number U700 – HNBR Technical Specification, dated 04-November-2015
- 4) Expansion Joint Teguflex PU DN25-300(BL 130) dated 10-September-2013
- 5) Datasheet - Teguflex HP Trelleborg TF BL 130/200
- 6) Datasheet - Teguflex P Trelleborg TF BL 130.
- 7) Datasheet – Teguflex P HO
- 8) PG-TIZ-08-36-Reinforcement Specification dated 11-June-2018
- 9) Quality department certification-Teguflex Minimum Temperature dated 19-October-2020
- 10) Quality department certification-HO-Pressure and Max Temperature Rating For Ho dated 19-October-2020

### Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 01/Nov/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

### ABS Rules

2020 ABS Rules for Condition of Classification:1-1-4/7.7, 1-1/A3, 1-1/A4 which covers the following:

2020 ABS Marine Vessel Rules :4-6-2/5.8.1, 4-6-2/9.5

2020 ABS Rules for Conditions of Classification - Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2020 ABS Rules for Building and Classing Mobile Offshore Units 2020 4-2-1/11.7

### International Standards

NA

### EU-MED Standards

NA

**National Standards**

NA

**Government Standards**

NA

**Other Standards**

NA



A handwritten signature in black ink, appearing to read 'Joseph W. ...'.

Corporate ABS Programs  
American Bureau of Shipping  
Print Date and Time: 04-Nov-2020 7:15

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.