



Notified Body No. 0370

# CERTIFICATE

No. **0370-CPR-0769**

## CERTIFICATE OF CONSTANCY OF PERFORMANCE

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (the Construction Products Regulation or CPR), this certificate applies to the construction product:

### STRUCTURAL BEARINGS. PART 3: ELASTOMERIC BEARINGS

- STRUCTURAL ELASTOMERIC BEARINGS of CR TYPE A, B, C & F WITHOUT ANY SLIDING SURFACES OR ELEMENTS IN ACCORDANCE WITH ZA.1.a
- STRUCTURAL ELASTOMERIC BEARINGS of CR TYPE D WITH SLIDING SURFACES IN ACCORDANCE WITH ZA.1.b
- STRUCTURAL ELASTOMERIC BEARINGS of CR TYPE E WITH SLIDING SURFACES IN ACCORDANCE WITH ZA.1.c
- STRUCTURAL ELASTOMERIC BEARINGS of NR TYPE A, B C & F WITHOUT ANY SLIDING SURFACES OR ELEMENTS IN ACCORDANCE WITH ZA.1.a
- STRUCTURAL ELASTOMERIC BEARINGS of NR TYPE D WITH SLIDING SURFACES IN ACCORDANCE WITH ZA.1.b

Place on the market under the name of:

## CAUCHOS JEMA, S.A.

C/ ÁLAMO, 4 – P.I. EL ÁLAMO  
28970 HUMANES (MADRID) SPAIN

And produced in the manufacturing plant:

C/ ÁLAMO, 4 – P.I. EL ÁLAMO  
28970 HUMANES (MADRID) SPAIN

This certificate attests that all provisions concerning the assessment and verification of constancy of performance described in Annex ZA of the standard

**EN 1337-3:2005**

under system 1 are applied and that **the product fulfils all the prescribed requirements set out above.**

This certificate was first issued on 30<sup>th</sup> January 2009 and will remain valid as long as the test methods and/or factory production control requirements included in the harmonised standard, used to assess the performance of the declared characteristics, do not change, and the product, and the manufacturing conditions in the plant are not modified significantly. It is confirmed and modified on 29<sup>th</sup> January 2021.

**The monitoring assessment will be done before 31<sup>st</sup> January 2021**

Bellaterra, 22<sup>nd</sup> January 2021

  
LGAI Technological Center, S.A.

Xavier Ruiz Peña  
Managing Director, Product Conformity B.U.

*This document is not valid without its technical annex; whose number coincides with that of the certificate.*

*You can check the validity of this certificate on our website: [www.appluslaboratories.com/certified\\_products](http://www.appluslaboratories.com/certified_products)*



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- STRUCTURAL ELASTOMERIC BEARINGS TYPE A, B, C & F WITHOUT ANY SLIDING SURFACES OR ELEMENTS IN ACCORDANCE WITH ZA.1.a
- STRUCTURAL ELASTOMERIC BEARINGS TYPE D WITH SLIDING SURFACES IN ACCORDANCE WITH ZA.1.b
- STRUCTURAL ELASTOMERIC BEARINGS TYPE E WITH SLIDING SURFACES IN ACCORDANCE WITH ZA.1.c
- TEMPERATURE OF WORK -25°C TO 50°C
- MAXIMUM DIMENSIONS 1200 X 1200 m
  - **ELASTOMER**                      **CR**
  - **STEEL**                                **S 235**
  - **SLIDING ELEMENT**                **PTFE**

REQUIREMENT	CLAUSE		RESULTS
<b>1337-3 CLAUSES</b>			
LOAD BEARING CAPACITY	4.3.1	<b>SHEAR MODULUS (ANNEX F, NORMATIVE)</b>	
	4.3.1.1	Nominal T = 23 °C	PASS
	4.3.1.2	At low T = -25 °C	PASS
	4.3.1.3	At very low T (-40 °C 3 days)	NA
	4.3.1.4	After ageing (3 days at 70 °C)	PASS
	<b>4.3.2</b>	<b>SHEAR BOND STRENGTH (ANNEX G, NORMATIVE)</b>	
	4.3.2.1	Nominal T = 23 °C	PASS
	4.3.2.2	After ageing (3 days at 70 °C)	PASS
	<b>4.3.3</b>	<b>COMPRESSION STIFFNESS (ANNEX H, NORMATIVE)</b>	
	4.3.3.1	Compression stiffness	PASS
	4.3.4	Resistance to repeated loading in compression	<b>(ANNEX I, NORMATIVE)</b>
	<b>4.4.3</b>	<b>Steel reinforcing plates</b>	
	4.4.3.1	Inner plates	PASS
	4.4.3.2	Outer plates	TABLE 2
	5.1	General	PASS
	<b>5.3.3</b>	<b>Basis of design</b>	
	5.3.3.1	Shape factor	PASS
	5.3.3.2	Design strain due to compressive load	PASS
	5.3.3.3	Shear strain	PASS
	5.3.3.4	Design strain due to angular rotation	PASS
	5.3.3.5	Reinforcing plate thickness	PASS
	5.3.3.6	Limiting conditions	PASS
	5.3.3.7	Forces, moments, and deformations exerted on the structure	PASS
<b>5.4</b>	<b>Plain pad bearings</b>		
<b>5.5</b>	<b>Strip bearings</b>		
			PASS

NPD: No Performance Determined // NA: Not applicable

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REQUIREMENT		CLAUSE		RESULTS
ROTATION CAPACITY	5.1	General		PASS
	5.3.3.4	Design strain due to angular rotation		PASS
	5.3.3.6	Limiting conditions		PASS
	5.3.3.7	Forces, moments, and deformations exerted on the structure		PASS
	4.3.5	ANNEX J: STATIC ROTATION CAPABILITY		NPD
	4.3.5.2	ANNEX J: ECCENTRIC LOADING		NPD
	4.3.5.3	ANNEX J: RESTORING MOMENT		NPD
DURABILITY ASPECTS	4.3.6	Ozone resistance	(ANNEX L, NORMATIVE)	NPD
	4.3.7	PTFE / elastomer shear bond strength	(ANNEX M, NORMATIVE)	PASS
	4.4.2	Physical and mechanical properties of elastomer	TABLE 1	PASS
	4.4.4	Sliding surface		
	4.4.4.1	Bearings type D and E	6.9 of EN 1337-2	PASS
	4.4.4.2	Top sliding surface (type D)		PASS
	4.4.4.3	Lubrication dimples (type D)		PASS
	4.4.4.4	Friction coefficient	6.9 of EN 1337-2	PASS
	EN 1337-9	General Requirements, 4.1.1.1		PASS
	LOAD BEARING CAPACITY (of sliding element)	EN 1337-2 Clauses 5.3, 5.5, 6 and 5.2		PASS
COEFFICIENT OF FRICTION (of sliding element)	EN 1337-2 Clause 4.1.1		PASS	
DURABILITY ASPECTS (of sliding element)	EN 1337-2 Clauses 4.3.5.2, 4.7, 5.1 and 5.2		PASS	
	EN 1337-9 Clause 4		NPD	

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- STRUCTURAL ELASTOMERIC BEARINGS TYPE A, B, C & F WITHOUT ANY SLIDING SURFACES OR ELEMENTS IN ACCORDANCE WITH ZA.1.a
- STRUCTURAL ELASTOMERIC BEARINGS TYPE D WITH SLIDING SURFACES IN ACCORDANCE WITH ZA.1.b
- TEMPERATURE OF WORK -25°C TO 50°C
- MAXIMUM DIMENSIONS 1200 X 1200 m
  - **ELASTOMER**                      **NR**
  - **STEEL**                              **S 235**
  - **SLIDING ELEMENT**              **PTFE**

REQUIREMENT	CLAUSE		RESULTS
<b>1337-3 CLAUSES</b>			
LOAD BEARING CAPACITY	4.3.1	<b>SHEAR MODULUS (ANNEX F, NORMATIVE)</b>	
	4.3.1.1	Nominal T = 23 °C	PASS
	4.3.1.2	At low T = -25 °C	PASS
	4.3.1.3	At very low T (-40 °C 3 days)	NA
	4.3.1.4	After ageing (3 days at 70 °C)	PASS
	<b>4.3.2</b>	<b>SHEAR BOND STRENGTH (ANNEX G, NORMATIVE)</b>	
	4.3.2.1	Nominal T = 23 °C	PASS
	4.3.2.2	After ageing (3 days at 70 °C)	PASS
	<b>4.3.3</b>	<b>COMPRESSION STIFFNESS (ANNEX H, NORMATIVE)</b>	
	4.3.3.1	Compression stiffness	PASS
	4.3.4	Resistance to repeated loading in compression	<b>(ANNEX I, NORMATIVE)</b>
	<b>4.4.3</b>	<b>Steel reinforcing plates</b>	
	4.4.3.1	Inner plates	PASS
	4.4.3.2	Outer plates	TABLE 2
	5.1	General	PASS
	<b>5.3.3</b>	<b>Basis of design</b>	
	5.3.3.1	Shape factor	PASS
	5.3.3.2	Design strain due to compressive load	PASS
	5.3.3.3	Shear strain	PASS
	5.3.3.4	Design strain due to angular rotation	PASS
	5.3.3.5	Reinforcing plate thickness	PASS
	5.3.3.6	Limiting conditions	PASS
	5.3.3.7	Forces, moments, and deformations exerted on the structure	PASS
	<b>5.4</b>	<b>Plain pad bearings</b>	
<b>5.5</b>	<b>Strip bearings</b>		
			PASS

NPD: No Performance Determined // NA: Not applicable

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REQUIREMENT	CLAUSE		RESULTS
ROTATION CAPACITY	5.1	General	PASS
	5.3.3.4	Design strain due to angular rotation	PASS
	5.3.3.6	Limiting conditions	PASS
	5.3.3.7	Forces, moments, and deformations exerted on the structure	PASS
	4.3.5	ANNEX J: STATIC ROTATION CAPABILITY	NPD
	4.3.5.2	ANNEX J: ECCENTRIC LOADING	NPD
	4.3.5.3	ANNEX J: RESTORING MOMENT	NPD
DURABILITY ASPECTS	4.3.6	Ozone resistance	(ANNEX L, NORMATIVE) NPD
	4.3.7	PTFE / elastomer shear bond strength	(ANNEX M, NORMATIVE) PASS
	4.4.2	Physical and mechanical properties of elastomer	TABLE 1 PASS
	4.4.4	Sliding surface	
	4.4.4.1	Bearings type D and E	6.9 of EN 1337-2 PASS
	4.4.4.2	Top sliding surface (type D) PASS	
	4.4.4.3	Lubrication dimples (type D) PASS	
	4.4.4.4	Friction coefficient	6.9 of EN 1337-2 PASS
	EN 1337-9	General Requirements, 4.1.1.1 PASS	

NPD: No Performance Determined // NA: Not applicable