



**POLITECNICO**  
MILANO 1863

Laboratorio Prove Materiali - NB 1777 CPR



PRD N° 0317

**Notified Body 1777 - CPR**

**CERTIFICATE OF CONSTANCY OF PERFORMANCE**  
**1777 - CPR - 23.02**

In compliance with Regulation (EU) No. 305/2011 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

**Hydraulic Fuse Restraints (HFR)**

with trade name

**FP**

Rigid connection devices, type mechanical fuse restraints, to use in buildings and civil engineering works where requirements on individual devices are critical,

placed on the market under the name or trade mark of

**BEARINGS AND JOINTS SRL**

**Corso Francia, 96 - 10143 Torino (TO) - Italy**

and produced in the manufacturing plant

**BEARINGS AND JOINTS SRL**

**Via Caossea, 61 - 35038 Torreglia (PD) - Italy**

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

**EN 15129:2009**

under System 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

**constancy of performance of the construction product.**

This certificate was first issued on 22 December 2023 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

The main characteristics of the product are reported in the Annex to this certificate.

Milan, 22 December 2023

Revision n. 0

Laboratorio Prove Materiali  
Politecnico di Milano  
Piazza Leonardo da Vinci, 32  
20133 Milano  
Tel. 02 2399 4210  
Fax 02 2399 4211  
info-lpmc-aricid@polimi.it  
www.lpmc.polimi.it

Prof. Ing. Carlo Poggi  
Head of Certification Body



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**Annex to Certificate of Constancy of Performance  
no. 1777 – CPR – 23.02**

**Hydraulic Fuse Restraint (HFR)**

with trade name

**FP**

Description of the product

FP functionality is to impede any relative movement between connected parts below a certain pre-established force threshold (breakaway force), whereas they freely permit the movements after the aforesaid threshold has been exceeded.

The device is classified as Hydraulic Fuse Restraint (MFR) in accordance with Table 1 of hEN 15129:2009.

The device is equipped with a hydraulic accumulator.

The viscous fluid is identified as fluid A<sup>1</sup>

The temperature range is from -25° C to +50° C.

The intended use is in buildings and civil engineering works.

<sup>1</sup> appropriate documents reporting the identification characteristics of the fluid, active surfaces and outsourced manufacturing processes are deposited at the Notified Body involved in the attestation of constancy of performance procedure.

Performance characteristics

FP devices meet the following requirements in accordance with hEN 15129:2009:

- service load test, clause 5.2.4.2
- break-away test, clause 5.2.4.4

The product is not intended to sustain fatigue loads.





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#### Type, identification and use

FP product types have been evaluated on the basis of the results reported below

<b>FP 180</b>		
<i>Essential characteristics</i>	<i>Design value</i>	<i>Unit</i>
Resistance to seismic loads		
Design load	±180	kN
Service load	±125	kN
Durability	Durable	
Service temperature		
Minimum	-25	° C
Maximum	+50	° C

According to Test Report no. 2023/1247.

<b>FP 350</b>		
<i>Essential characteristics</i>	<i>Design value</i>	<i>Unit</i>
Resistance to seismic loads		
Design load	±350	kN
Service load	±250	kN
Durability	Durable	
Service temperature		
Minimum	-25	° C
Maximum	+50	° C

According to Test Report no. 2023/1248.

<b>FP 700</b>		
<i>Essential characteristics</i>	<i>Design value</i>	<i>Unit</i>
Resistance to seismic loads		
Design load	±700	kN
Service load	±500	kN
Durability	Durable	
Service temperature		
Minimum	-25	° C
Maximum	+50	° C

According to Test Report no. 2023/1249.



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FP products covered by the present Certificate of Constancy of Performance are manufactured with the same internal or external geometry, materials batch and kind of constraints.

Milan, 22 December 2023

Prof. Ing. Carlo Poggi  
Head of Certification Body

**The present Annex is only valid together with the  
Certificate of Constancy of Performance no. 1777 – CPR – 23.02  
rev.0 dated 22 December 2023**