# DECLARATION OF PERFORMANCES

**according to annex of Delegated Regulation (EU) N° 574/2014**

**DoP-002CY**

1. Unique Identification Code of the product-type:

**S001A (SAINT-GOBAIN PAM Bâtiment - Cast iron pipes systems for the evacuation of water from buildings, governed by harmonised standard EN 877:1999 / AC:2008)**

2. Identification of the construction product as required pursuant to Article 11 § 4 of the regulation (EU) N° 305/2011:

**RANGE SMU S – Traceability: see products.**

3. Intended (uses or) uses of the construction product:

**Evacuation of water from buildings – above ground systems and systems encased or embedded in concrete.**

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11 § 5 of the regulation (EU) N° 305/2011 :

**SAINT-GOBAIN PAM Bâtiment**
**21, avenue Camille Cavallier - BP 129**
**F-54705 PONT A MOUSSON Cedex**
**https://www.pambuilding.com/**

5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12 § 2:

**Not applicable.**

6. System(s) of assessment and verification of constancy of performance of the construction product as set out in Annex V of the regulation (EU) N° 305/2011:

**Systems 3 for the reaction to fire of the pipe system (range) and 4 for all other characteristics.**

7. Case of the declaration of performance concerning a construction product covered by a harmonized standard:

**Bodycote CSTB (Notified Body n° 0679) have made the European classification of reaction to fire of the range on the basis of initial type testing under system 3 according to the standard EN 877:1999/AC:2008.**
**They have issued the report of classification as relevant.**

8. Case of the declaration of performance concerning a construction product for which a European technical Assessment has been issued:

**Not applicable.**

9. Declared performances

In the following table, all the essential characteristics listed in the first column correspond to the ones described in the Annex ZA of the standard EN 877:1999/AC:2008.

| Essential characteristics | Performances |
|---|---|
| **Reaction to fire** | |
| - Cast iron | A1 |
| - Range | A1 |
| NOTE 1 | |
| **Internal pressure strength** | |
| - Water tightness | Conform |
| NOTE 3 | |
| **Dimension tolerances** | |
| - External diameter | Conform |
| - Wall thickness | Conform |
| - Ovality | Conform |
| **Impact resistance** | |
| - Mechanical properties | Conform |
| ▪ Tensile strength | 300 MPa (average value - pipes) |
| ▪ Ring crush strength | 450 MPa (average value - pipes) |
| ▪ Brinell hardness | 220 HB (average value - pipes) |
| NOTE 2 | |
| **Tightness : gas and liquid** | |
| - Water tightness * | Conform |
| Internal pressure | |
| DN ≤ 200 | ≥ 5 bar |
| DN > 200 | ≥ 3 bar |
| * excluded flexible couplings, joints connecting to sanitary ware …) | |
| - Air tightness | Conform |
| NOTE 4 | |
| **Durability aspects** | |
| - External coatings: | |
| ▪ pipes | Acrylic/Conform |
| ▪ fittings | Epoxy/Conform |
| - Internal coatings: | |
| ▪ pipes ** | Epoxy/Conform |
| ▪ fittings ** | Epoxy/Conform |
| ** including resistance to salt spray | ≥ 1500 h |
| NOTE 5 | |

NOTE 1 In accordance with the Commission decision 96/603/EC of 4th of October 1996, the material is class A1 without the need for testing.

NOTE 2 Measured through proxy characteristic.

NOTE 3 Testing of the joint (weakest point) is sufficient for determining the internal pressure strength, moreover, pipes are used when testing the joints. The high level of performance of pipes and fittings on this matter can be demonstrated by the following calculation that will be included in the normative part of the standard in its next revision.

$$P = \frac{20 \times e \times R_m}{D \times S_F}$$

where

- $e$ is the minimum pipe wall thickness, in millimetres;
- $D$ is the mean pipe diameter ($DE - e$), in millimetres;
- $DE$ is the nominal pipe external diameter, in millimetres;
- $R_m$ is the minimum tensile strength of cast iron, in megapascals. ($R_m$ = 420 MPa for spheroidal graphite cast iron and 200 MPA for grey cast Iron);
- $S_F$ is a safety factor of 3.

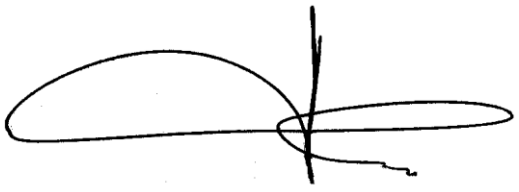
For a DN 100 pipe, the internal pressure strength is more than 100 bars.

NOTE 4 For the purpose of tightness the testing with air is more severe since the air molecules will be smaller than those of gasses normally encountered in drainage systems.

NOTE 5 The durability of cast iron is determined by the performance of the coating used. Provided the coating is properly maintained the cast iron products will last indefinitely.

10. The performances of the product identified in points 1 and 2 above are in conformity with the declared performances in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer by:

Pont-à-Mousson, on the 31/03/2022

The **General Manager M. Eric Escalettes**,