

# DECLARATION OF PERFORMANCE: 11146036-4

1. Identification Code: 11146036 ELASTOFLEX 4 PL

2. Intended use:

| Standard: EN | Intended use:                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------|
| 13707:2013   | Reinforced flexible bitumen sheets for roof waterproofing:                                                       |
|              | Single layer                                                                                                     |
|              | Top layer                                                                                                        |
|              | X Underlay and intermediate layer                                                                                |
|              | X Layer under heavy protection                                                                                   |
|              | Layer for roof gardens                                                                                           |
| 13969:2007   | X Bitumen damp proof sheets including bitumen basement tanking sheets                                            |
| 13859-1:2014 | Flexible sheets for waterproofing : Underlays for discontinuous roofing                                          |
| 13970:2007   | Bitumen water vapour control layers                                                                              |
| 14695:2010   | Reinforced bitumen sheets for waterproofing concrete bridge decks and other areas of concrete subject to traffic |

3. Manufacturer: Valli Zabban S.p.A - 50041 Calenzano (FI) - Via Di Le Prata, 103 - Tel +39 055 328041 - Fax +39 055 300 300 www.vallizabban.it - info@vallizabban.it

4. System or systems of assessment and verification of constancy of performance of the construction product:

| EN harmonized standard | VVCP systems |
|------------------------|--------------|
| 13707 / 13969 / 14695  | System 2+    |
| 13859-1 / 13970        | System 3     |

5. Notified bodies:

| EN harmonized standard | Notified body / laboratory     | Notification code | FPC Certificate of conformity |
|------------------------|--------------------------------|-------------------|-------------------------------|
| 13707 / 13969 / 14695  | Bureau Veritas                 | 1370              | 1370-CPR-0042                 |
| 13859-1                | Technische Universität München | 1211              | /                             |
| 13970                  | Technische Universität München | 1211              | /                             |

6. Declared performances:

| Relevant characteristics :                                         | Unit                                                                       | Performance  | Tolerance <sup>(1)</sup> | EN Test               | EN harmonized standard |       |       |       |         |
|--------------------------------------------------------------------|----------------------------------------------------------------------------|--------------|--------------------------|-----------------------|------------------------|-------|-------|-------|---------|
|                                                                    |                                                                            |              |                          |                       | 13707                  | 13969 | 14695 | 13970 | 13859-1 |
| External Fire Performance                                          | Broof                                                                      | F roof       | -                        | 13501-5               | ●                      |       |       |       |         |
| Reaction To Fire                                                   | Classe                                                                     | F            | -                        | 13501-1               | ●                      | ●     |       | ●     | ●       |
| Watertightness                                                     | kPa                                                                        | 60           | ≥                        | 1928                  | ●                      | ●     |       | ●     |         |
| Watertightness                                                     | Classe                                                                     | NPD          | -                        |                       |                        |       |       |       | ●       |
| Tensile strength at max L/T                                        | N/5cm                                                                      | 550 / 350    | ±20%                     | 12311-1               | ●                      | ●     | ●     | ●     | ●       |
| Elongation at max L/T                                              | %                                                                          | 30 / 30      | ± 15                     |                       |                        |       |       |       |         |
| Root resistance                                                    |                                                                            | NPD          | -                        | 13948                 | ●                      |       |       |       |         |
| Resistance to static loading – Method A soft substrate             | Kg                                                                         | NPD          | ≥                        | 12730                 | ●                      |       |       |       |         |
| Resistance to static loading – Method B hard substrate             | Kg                                                                         | NPD          | ≥                        | 12730                 | ●                      | ●     |       |       |         |
| Resistance to impact – Method B soft substrate                     | mm                                                                         | NPD          | ≥                        | 12691                 | ●                      |       |       |       |         |
| Resistance to impact - Method A hard substrate                     | mm                                                                         | 800          | ≥                        | 12691                 | ●                      | ●     |       | ●     |         |
| Nail tearing resistance L/T                                        | N                                                                          | 140 / 140    | ±30%                     | 12310-1               | ●                      | ●     |       | ●     | ●       |
| Peel resistance of joints                                          | N/5cm                                                                      | NPD          | -20                      | 12316-1               | ●                      |       |       |       |         |
| Shear resistance of joints                                         | N/5cm                                                                      | 500 / 300    | ±20%                     | 12317-1               | ●                      | ●     |       | ●     |         |
| Flexibility at low temperature                                     | °C                                                                         | - 15         | ≤                        | 1109                  | ●                      | ●     | ●     | ●     | ●       |
| Vapour resistance                                                  | μ                                                                          | 20000        | ≥                        | 1931                  |                        |       |       | ●     |         |
| Durability after ageing T: Flexibility at low temperature          | °C                                                                         | NPD          | ≤                        | 1296 / 1109           | ●                      |       | ●     |       |         |
| Durability after ageing T: Flow resistance at elevated temperature | °C                                                                         | 90           | -10                      | 1296 / 1110           |                        |       |       |       |         |
| Durability after ageing UV: Visible difects                        |                                                                            | NPD          | -                        | 1297 / 1850-1         | ●                      |       |       |       |         |
| Durability after ageing UV/T: Tensile strength at max L/T          | N/5cm                                                                      | NPD          | -                        | 1297 / 1296 / 12311-1 |                        |       |       |       | ●       |
| Durability after ageing UV/T: Elongation at max L/T                | %                                                                          | NPD          | -                        |                       |                        |       |       |       |         |
| Durability after ageing UV/T: Watertightness                       | kPa                                                                        | Passa/passed | -                        | 1297 / 1296 / 1928    |                        |       |       |       |         |
| Durability after ageing T: Watertightness                          | kPa                                                                        | Passa/Passed | -                        | 1296 / 1928           |                        | ●     |       |       |         |
| Durability after ageing RC: Watertightness                         | kPa                                                                        | NPD          | -                        | 1847 / 1928           |                        |       |       |       |         |
| Durability after ageing T: Vapour resistance                       | μ                                                                          | NPD          | -                        | 1296 / 1931           |                        |       |       | ●     |         |
| Durability after ageing RC: Vapour resistance                      | μ                                                                          | NPD          | -                        | 1847 / 1931           |                        |       |       |       |         |
| Water absorption                                                   | %                                                                          | NPD          | -                        | 14223                 |                        |       |       |       |         |
| Watertightness                                                     | kPa                                                                        | NPD          | -                        | 14694                 |                        |       |       |       |         |
| Bond strength                                                      | N/mm²                                                                      | NPD          | -                        | 13596                 |                        |       |       |       |         |
| Crack bridging                                                     | °C                                                                         | NPD          | -                        | 14224                 |                        |       |       |       |         |
| Compatibility by heat conditioning                                 | %                                                                          | NPD          | -                        | 14691                 |                        |       | ●     |       |         |
| Resistance to thermal shock                                        | %                                                                          | NPD          | -                        | 14693                 |                        |       |       |       |         |
| Resistance to compaction of an asphalt layer                       |                                                                            | NPD          | -                        | 14692                 |                        |       |       |       |         |
| Shear strength                                                     | N/mm²                                                                      | NPD          | -                        | 13653                 |                        |       |       |       |         |
| Dangerous substances                                               | This Product does not contain asbestos or tar constituents. <sup>(2)</sup> |              |                          |                       | ●                      | ●     | ●     | ●     | ●       |

(1) Note: In the absence of a uniform test method throughout Europe, any verifications and declarations on release/content must be performed considering the national regulations of the place of use.

7. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 7. The declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3.

Place and date of issue Calenzano , Italy 05/06/2024

Responsabile Tecnico Daniele Piccardi