

# DECLARATION OF PERFORMANCE: 11146147-6

**1. Identification Code: 11146147 ELASTOFLEX MINERALE 5 PL**

**2. Intended use:**

| Standard: EN | Intended use:                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------|
| 13707:2013   | Reinforced flexible bitumen sheets for roof waterproofing:                                                       |
|              | Single layer                                                                                                     |
|              | X Top layer                                                                                                      |
|              | Underlay and intermediate layer                                                                                  |
|              | Layer under heavy protection                                                                                     |
|              | Layer for roof gardens                                                                                           |
| 13969:2007   | Bitumen damp proof sheets including bitumen basement tanking sheets                                              |
| 13859-1:2014 | X 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](http://www.vallizabban.it) - [info@vallizabban.it](mailto: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                                                                     | W1          | -                        |                       |                        |       |       |       | ●       |
| Tensile strength at max L/T                                        | N/5cm                                                                      | 500 / 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                                                                         | NPD         | ≥                        | 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                                                                      | NPD         | ±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                                                                        | NPD         | -                        | 1297 / 1296 / 1928    |                        |       |       |       |         |
| Durability after ageing T: Watertightness                          | kPa                                                                        | NPD         | -                        | 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

