DECLARATION OF PERFORMANCE: 11110381-1





1. Identification Code: 11110381 EXTRAGUM MINERALE 4,5 PL CLASSIC

2. Intended use:

Standard: EN		Intended use:	
	Rein	ıforced flexible bitumen sheets for roof waterproofing:	
		Single layer	
40707 0040	Χ	Top layer	
13707:2013		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	Х	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: External Fire Performance Broof Froof Reaction To Fire Classe F Watertightness kPa 60 Watertightness Classe W1 Tensile strength at max L/T N/5cm 800 / 630 Elongation at max L/T Root resistance Resistance to static loading – Method A soft substrate Resistance to static loading – Method B hard substrate Kg NPD Resistance to impact – Method B soft substrate Resistance to impact – Method B soft substrate MPD Nail tearing resistance L/T N 170 / 170 Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Durability after ageing T: Flexibility at low temperature Durability after ageing UV/T: Elongation at max L/T NPD Durability after ageing UV/T: Watertightness RPA NPD Durability after ageing T: Watertightness RPA NPD Durability after ageing RC: Watertightness RPA NPD Durability after ageing T: Watertightness RPA NPD Durability after ageing RC: Watertightness RPA NPD Durability after ageing RC: Watertightness RPA NPD	Tolerance (1) 2 - ± 20 % ± 15 - 2 ≥ - 30 % - 20 - ≤ ≥ - 10	13501-5 13501-1 1928 12311-1 13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931 1296 / 1109	13969	•	13970 • • • • • • • • • • • • • • • • • • •	•
Reaction To Fire Classe F Watertightness KPa 60 Watertightness Classe W1 Tensile strength at max L/T N/5cm 800 / 630 Elongation at max L/T % 45 / 45 Root resistance NPD Resistance to static loading – Method A soft substrate Kg NPD Resistance to static loading – Method B hard substrate Kg NPD Resistance to impact – Method B soft substrate mm NPD Resistance to impact – Method B soft substrate mm NPD Resistance to impact – Method A hard substrate mm NPD Resistance to impact – Method A hard substrate mm NPD Resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Flexibility at low temperature °C -20 Durability after ageing T: Flexibility at low temperature °C NPD Durability after ageing T: Flow resistance at elevated temperature °C 140 Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T % NPD Durability after ageing UV/T: Watertightness KPA NPD Durability after ageing T: Watertightness KPA NPD	- ± 20 % ± 15 - ≥ ≥ 2 2 - 30 % - 20 - ≤ ≥ ≤	13501-1 1928 12311-1 13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•		•	•
Watertightness	- ± 20 % ± 15 - ≥ ≥ 2 2 - 30 % - 20 - ≤ ≥ ≤	1928 12311-1 13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•		•	•
Watertightness Classe W1 Tensile strength at max L/T N/5cm 800 / 630 Elongation at max L/T Root resistance NPD Resistance to static loading – Method A soft substrate Resistance to static loading – Method B hard substrate Resistance to impact – Method B soft substrate Resistance to impact – Method B soft substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance of impact – Method A hard substrate Resistance of joints NPD Nail tearing resistance L/T N 170 / 170 Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Flexibility at low temperature PC Vapour resistance Vap	- ± 20 % ± 15 - ≥ ≥ 2 2 - 30 % - 20 - ≤ ≥ ≤	12311-1 13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•		•	•
Tensile strength at max L/T Floor resistance at max L/T Root resistance to static loading – Method A soft substrate Resistance to static loading – Method B hard substrate Resistance to impact – Method B soft substrate Resistance to impact – Method B soft substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance of joints Resistance of joints N/5cm NPD Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Plexibility at low temperature C Vapour resistance Pu 20000 Durability after ageing T: Flexibility at low temperature C NPD Durability after ageing UV: Visible difects NPD Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T N/5cm NPD Durability after ageing UV/T: Watertightness RPA NPD Durability after ageing T: Watertightness	± 15 ≥ ≥ - 30 % - 20 - ≤ ≥ ≤	12311-1 13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•		•	•
Elongation at max L/T Root resistance Resistance to static loading – Method A soft substrate Resistance to static loading – Method B hard substrate Resistance to impact – Method B soft substrate Resistance to impact – Method B soft substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance of impact – Method A hard substrate Resistance of joints N/5cm NPD N/5cm NPD Shear resistance of joints N/5cm NPD Wapour resistance Pu 20000 Durability at low temperature C NPD Durability after ageing T: Flexibility at low temperature Purability after ageing UV: Visible difects NPD Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T N/5cm NPD Durability after ageing UV/T: Watertightness RPa NPD Durability after ageing T: Watertightness RPa NPD	± 15 ≥ ≥ - 30 % - 20 - ≤ ≥ ≤	13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•		•	•
Root resistance Resistance to static loading – Method A soft substrate Resistance to static loading – Method B hard substrate Resistance to impact – Method B soft substrate Resistance to impact – Method B soft substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance to impact – Method A hard substrate Resistance of impact – Method A hard substrate Resistance of joints Resistance of joints Releasibility are sistance of joints Releasibility at low temperature Resistance Resistance of joints Resistance to impact – Method B soft substrate Resistance to impact – Method Resistance of items of the following in the substrate of the properties of the following in the substrate of the properties of the following in the substrate of the p	- ≥ ≥ ≥ - 30 % - 20 - ≤ ≥	13948 12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•		•	•
Resistance to static loading – Method A soft substrate Resistance to static loading – Method B hard substrate Resistance to impact – Method B soft substrate Resistance to impact – Method B soft substrate Resistance to impact – Method A hard substrate Resistance of joints Resistance to static loading resistance of joints Resistance to static loa	≥ ≥ - 30 % - 20 - ≤ ≥	12730 12730 12691 12691 12310-1 12316-1 12317-1 1109 1931	•	•	•	•
Resistance to static loading – Method B hard substrate Kg NPD Resistance to impact – Method B soft substrate mm NPD Resistance to impact – Method A hard substrate mm NPD Resistance to impact – Method A hard substrate mm NPD Resistance to impact – Method A hard substrate mm NPD Resistance of joints N/5cm NPD Reel resistance of joints N/5cm NPD Resibility at low temperature °C - 20 Repour resistance Resibility at low temperature °C NPD Resibility after ageing T: Flexibility at low temperature °C NPD Resibility after ageing T: Flow resistance at elevated temperature °C 140 Repour ageing T: Flow resistance at elevated temperature °C NPD Resibility after ageing UV: Visible difects NPD Resistance NPD Resistance to impact – Method B hard substrate mm NPD Resistance to impact – Method B hard substrate	≥ ≥ - 30 % - 20 - ≤ ≥	12730 12691 12691 12310-1 12316-1 12317-1 1109	•	•	•	•
Resistance to impact – Method B soft substrate mm NPD Resistance to impact - Method A hard substrate mm NPD Nail tearing resistance L/T N 170 / 170 Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Clexibility at low temperature °C - 20 Apour resistance pure 20000 Durability after ageing T: Flexibility at low temperature °C NPD Durability after ageing UV: Visible difects NPD Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Watertightness RPA NPD Durability after ageing UV/T: Watertightness RPA NPD Durability after ageing T: Watertightness RPA NPD	≥ - 30 % - 20 - ≤ ≥	12691 12691 12310-1 12316-1 12317-1 1109 1931	•	•	•	•
Resistance to impact - Method A hard substrate mm NPD Nail tearing resistance L/T N 170 / 170 Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Clexibility at low temperature °C -20 Apour resistance µ 20000 Durability after ageing T: Flexibility at low temperature °C NPD Durability after ageing T: Flow resistance at elevated temperature °C 140 Durability after ageing UV: Visible difects NPD Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T % NPD Durability after ageing UV/T: Watertightness kPa NPD Durability after ageing T: Watertightness kPa NPD	≥ - 30 % - 20 - ≤ ≥ ≤	12691 12310-1 12316-1 12317-1 1109 1931	•	•	•	•
Nail tearing resistance L/T N 170 / 170 Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD Plexibility at low temperature Plexibility after ageing T: Flexibility at low temperature Plexibility after ageing T: Flow resistance at elevated temperature Plexibility after ageing UV: Visible difects NPD Purability after ageing UV/T: Tensile strength at max L/T Plexibility after ageing UV/T: Elongation at max L/T Plexibility after ageing UV/T: Watertightness Plexibility after ageing UV/T: Watertightness Plexibility after ageing T: Watertightness	- 30 % - 20 - ≤ ≥	12310-1 12316-1 12317-1 1109 1931	•	•	•	•
Peel resistance of joints N/5cm NPD Shear resistance of joints N/5cm NPD N/5cm NPD N/5cm NPD N/5cm NPD N/5cm NPD Occopy a point of the properties of the propert	- 20 - ≤ ≥	12316-1 12317-1 1109 1931	•	•	•	•
Shear resistance of joints N/5cm NPD Flexibility at low temperature C -20 Vapour resistance Pu 20000 Durability after ageing T: Flexibility at low temperature C NPD Durability after ageing T: Flow resistance at elevated temperature C 140 Durability after ageing UV: Visible difects NPD Durability after ageing UV/T: Tensile strength at max L/T Durability after ageing UV/T: Elongation at max L/T N/5cm NPD Durability after ageing UV/T: Watertightness RPa NPD Durability after ageing UV/T: Watertightness RPa NPD	- ≤ ≥	12317-1 1109 1931		•	•	•
Plexibility at low temperature °C - 20 /apour resistance Durability after ageing T: Flexibility at low temperature °C NPD Durability after ageing T: Flow resistance at elevated temperature °C 140 Durability after ageing UV: Visible difects Durability after ageing UV/T: Tensile strength at max L/T Durability after ageing UV/T: Elongation at max L/T Purability after ageing UV/T: Watertightness RPA NPD Durability after ageing T: Watertightness RPA NPD	≥ ≤	1109 1931		•	•	•
Vapour resistance μ 20000 Durability after ageing T: Flexibility at low temperature °C NPD Durability after ageing T: Flow resistance at elevated temperature °C 140 Durability after ageing UV: Visible difects NPD Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T % NPD Durability after ageing UV/T: Watertightness kPa NPD Durability after ageing T: Watertightness kPa NPD	≥ ≤	1931	•	•		•
Ourability after ageing T: Flexibility at low temperature Ourability after ageing T: Flow resistance at elevated temperature Ourability after ageing UV: Visible difects NPD Ourability after ageing UV/T: Tensile strength at max L/T Ourability after ageing UV/T: Elongation at max L/T Ourability after ageing UV/T: Watertightness NPD Ourability after ageing UV/T: Watertightness NPD Ourability after ageing T: Watertightness NPD Ourability after ageing T: Watertightness NPD	≤					
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Durability after ageing UV: Visible difects Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T NPD Durability after ageing UV/T: Watertightness RPa NPD Durability after ageing T: Watertightness RPa NPD	- 10					
Durability after ageing UV/T: Tensile strength at max L/T N/5cm NPD Durability after ageing UV/T: Elongation at max L/T % NPD Durability after ageing UV/T: Watertightness kPa NPD Durability after ageing T: Watertightness kPa NPD		1296 / 1110		•		
Durability after ageing UV/T: Elongation at max L/T % NPD Durability after ageing UV/T: Watertightness kPa NPD Durability after ageing T: Watertightness kPa NPD	-	1297 / 1850-1				
Ourability after ageing UV/T: Watertightness kPa NPD Ourability after ageing T: Watertightness kPa NPD	-	1297 / 1296 / 12311-1				
Durability after ageing T: Watertightness kPa NPD	-	1297 / 1290 / 12311-1				•
, , ,	-	1297 / 1296 / 1928				
Ourability after ageing RC: Watertightness kPa NPD	-	1296 / 1928	•			
, 5 55	-	1847 / 1928				
Durability after ageing T: Vapour resistance μ NPD	-	1296 / 1931				
Durability after ageing RC: Vapour resistance μ NPD	-	1847 / 1931				
Nater absorption % NPD	-	14223				
Natertightness kPa NPD	-	14694				
Bond strength N/mm ² 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/mm ² NPD		13653				

(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 id in conformity with the declared performance in point 7. The declaration of performance is issued under the sole responsibility of the manufactorer identified in point 3.

Responsabile Tecnico Daniele Piccardi