DECLARATION OF PERFORMANCE: 11128346-6

Valli Zabban | **TONON GROUP**

1. Identification Code: 11128346 BENDAGUM MINERALE 4,5 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 - info@vallizabban.it

4. System or systems of assesment 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 [1]	EN Test	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	450 / 330	± 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	130 / 130	- 30 %	12310-1	●		●	●
Peel resistance of joints	N/5cm	NPD	-	12316-1				
Shear resistance of joints	N/5cm	NPD	-	12317-1	●		●	
Flexibility at low temperature	°C	- 5	≤	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	110	- 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. [2]			●	●	●	●

(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.

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

Responsabile Tecnico Daniele Piccardi