

Declaration of Performance

Annex III of regulation (EU) Nr. 305/2011



Zemseal® fully-bonded membrane

No. G4C-Zemseal-2024-V.03-ETA

acc. to EAD 030378-00-0605:May 2018



1.	Unique identification code of the product type	Zemseal® fully-bonded membrane Zemseal® 05/08/12
2.	Intended use/es:	<ul style="list-style-type: none">• Sealing the building envelope against water• Crack bridging Crack sealing• Preventing backflow between waterproofing and concrete• Exclusively in combination with a waterproof construction
3.	Manufacturer:	MAX FRANK GmbH & Co. KG Mitterweg 1, 94339 Leiblfing, Germany
4.	Authorised representative:	not relevant (see 3.)
5.	System/s of AVCP:	System 2+ System 3 (fire behaviour)
6a.	Harmonised standard:	not applicable
6b.	European Assessment Document:	EAD 030378-00-0605 MPA BAU – TU Munich 1211-CPR-2404-4/2024

7. Declared Performance:

Basic Characteristics	Declared Performance
Reaction to fire according to Commission Delegated Regulation (EU) 2016/364	
Zemseal® - all types including acryl adhesive tape	Class E
Dimensions and Tolerances	
Visual defects – all types	According to EN 1850-2 free from defects
Dimensions	According to EN 1848-2
Length – all types	20 ± 0.2 m
Width – all types	1 up to 2 ± 0.02 m
Straightness – all types	≤ 10 mm / 10 m
Flatness	According to EN 1848-2
Zemseal® 05	≤ 5 mm
Zemseal® 08	≤ 20 mm
Zemseal® 12	≤ 30 mm
Thickness: total value	According to EN 1849-2
Zemseal® 05	0.8 mm ± 0.15 mm
Zemseal® 08	1.0 mm ± 0.15 mm
Zemseal® 12	1.2 mm ± 0.15 mm
Mass per unit area	According to EN 1849-2
Zemseal® 05	520 ± 40 g/m ²
Zemseal® 08	720 ± 40 g/m ²
Zemseal® 12	870 ± 40 g/m ²
Mechanical properties	
Tensile strength, mean values according to EN 12311-2	
Zemseal® 05	≥ 500 (l) ¹ , 380 (t) ² N/50 mm
Zemseal® 08	≥ 670 (l), 530 (t) N/50 mm
Zemseal® 12	≥ 800 (l), 580 (t) N/50 mm
Elongation at maximum tensile force according to EN 12311-2	
Zemseal® 05	≥ 10 (l), 12 (t) %
Zemseal® 08	≥ 20 (l), 30 (t) %
Zemseal® 12	≥ 19 (l), 25 (t) %
Resistance to static loading according to EN 12730 (method B)	
Zemseal® - all types	35 kg
Impact resistance according to EN 12691 (method A)	
Zemseal® 05	> 350 mm
Zemseal® 08	> 500 mm
Zemseal® 12	> 650 mm
Watertightness according to EN 1928 B, 60 kPa / EAD 030378-00-0605	
Zemseal® - all types	Passed
Acryl adhesive tape	Passed

¹ l – longitudinal testing

² t – transversal testing

Basic Characteristics	Declared Performance
Artificial ageing by long term exposure to elevated temperature	
Visual defects	Free of defects according to EN 1296 / EN 1850-2
Tensile strength, mean values, longitudinal according to EN 12311-2 / EN 1296	
Zemseal® 05	$r \geq 95 \%^3$
Elongation at max. tensile force, mean values, longitudinal according to EN 12311-2 / EN 1296	
Zemseal® 05	$r \geq 95 \%$
Modulus of elasticity, mean values, longitudinal according to EN 12311-2 / EN 1296	
Zemseal® 05	$r \geq 95 \%$
Water-tightness Zemseal® 05 according to EN 1928 B, 60 kPa	
at 23°C ± 2°C	Passed
at 40°C ± 2°C	Passed
at 70°C ± 2°C	Passed
Oxidation induction time according to EAD 030378-00-0605 / EN ISO 11357-6	
OIT, minimum mean value	3 min
Water vapor transmission property according to EN 1931 B	
Moisture resistance factor μ Zemseal® - all types	270.000
Alkali resistance in high pH solution (calcium hydroxide, 28 days) according to EN 1847 / EN 12311-2 (mech. properties) and EN 1847, EAD 030378-00-0605, EN 1928 (water)	
Zemseal® 05	
Tensile force, mean values (I)	$r \geq 90 \%$
Elongation at max. force, mean values (I)	$r \geq 95 \%$
Modulus of elasticity, mean values (I)	$r \geq 90 \%$
Watertightness	Passed
Acid resistance (6 % sulfurous acid, 28 days) according to EN 1847 / EN 12311-2 (mech. properties) EN 1847, EAD 030378-00-0605, EN 1928 (water)	
Zemseal® 05	
Tensile force, mean values (I)	$r \geq 95 \%$
Elongation at max. force, mean values (I)	$r \geq 95 \%$
Modulus of elasticity, mean values (I)	$r \geq 95 \%$
Watertightness	Passed
Compatibility with bitumen according to EN 1548 / EN 13304 / EN 12311-2 (mech. properties) EN 1548, EAD 030378-00-0605, EN 1928 (water)	
Zemseal® 05	
Tensile force, mean values (I)	$r \geq 90 \%$
Elongation at max. force, mean values (I)	$r \geq 95 \%$
Modulus of elasticity, mean values (I)	$r \geq 60 \%$
Watertightness	Passed

³⁾ r = Ratio value after ageing to value before ageing

Basic Characteristics	Declared Performance
Shear resistance of joints according to EN 12317-2	
Zemseal® 05 shear resistance of joints, mean values	≥ 400 N (lateral seam) ≥ 450 N (splice)
Mode of failure	Separate/split, adhesive area, cohesion fracture
Resistance to tearing (nail shank) according to EN 12310-1	
Zemseal® 05, mean values	≥ 290 N (l) and (t)
Elongation at maximum tensile force and maximum tensile force at low temperatures (at -45 °C ± 2 °C) According to EN 12311-2 /EAD 030378-00-0605	
Zemseal® 05	
Tensile strength, mean values	≥ 950 (l), 790 (q) N/50 mm
Elongation at max. tensile force	≥ 2 (l), 3 (q) %
Crack bridging ability according to EAD 030378-00-0605	
Zemseal® 05 reference hydrostatic pressure = 2 bar	No water leakage, no flaking, no blistering along the joint, passed
Peel-resistance (180-degree peel) arithmetic mean of the average peel forces According to EAD 030378-00-0605 / EN ISO 8510-2	
Base material	
Zemseal® 05	30 N
Zemseal® 08	22 N
Zemseal® 12	35 N
After immersion in water	
Zemseal® 05	
After 7 days at air at 20 ± 5 °C, moisture 50 ± 10 %	50 N
After 56 days at air at 20 ± 5 °C, moisture 50 ± 10 %	43 N
After 7 days of immersion in water at 20 ± 5 °C	43 N
After 28 days of immersion in water at 20 ± 5 °C	42 N
After 56 days of immersion in water at 20 ± 5 °C	42 N
After exposure to elevated temperature (70 °C)	
Zemseal® 05	
After 28 days of storage at 70 ± 2 °C	42 N
After 56 days of storage at 70 ± 2 °C	46 N
After cleaning	
Zemseal® 05 After cleaning	51 N
Resistance to damage – maximum value of water creep to leakage, duration 7 days, water pressure 5 bar According to EAD 030378-00-0605 / EN 12390-8	
Base material	
Zemseal® - all types	≤ 25 mm
After cleaning	
Zemseal® 05	≤ 25 mm

8. **Appropriate Technical Documentation and/or
Specific Technical Documentation:** ---

The performance of the product identified above is in conformity with the set of declared performance/s.
This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole
responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by



.....
Dipl.-Ing. B.Sc. Moritz Michel
Head of Technology and Innovation

Leibfing, 04.03.2024
