BUILDING COMMON GROUND

MAX FRANK®

Technical Data Sheet

Zemseal® - Pre-applied, fully-bonded waterproofing membrane

Fully-bonded waterproofing membrane for waterproof constructions with high utilisation requirements; crack-bridging, pressurised water-tight and tracking-proof.

Product

Description	**Zemseal® FBV-System** is a pre-applied, crack-bridging, pressurised water-tight and tracking-proof sealing system made of polypropylene (PP) for the green concrete bond in structures made of water-impermeable concrete.
Uses	Additional waterproofing measures for waterproofing constructions with high usage requirements. Fulfils the requirements according to: ▪ Use class A *** ▪ Stress class 1 ▪ Water exposure class W2-E ▪ EAD ▪ BS 8102:2009 Class 2-4 Use under floor slabs and on single- and double-sided formwork for walls and similar.
Characteristics / advantages	▪ watertightness up to 5 bar ▪ tracking proof due to mechanical and adhesive bond / tested up to 5 bar ▪ can be used up to 20 m water column ▪ wrinkle free installation ▪ surface cleaning via water jetting ▪ easy installation ▪ suitable for a variety of applications ▪ water vapor and gas-retardant ▪ resistance to mechanical stress ▪ can also be laid on damp subfloors ▪ installation also possible at low temperatures ▪ Free weathering of the composite layer max. 4 months (protect from dirt) ▪ Free weathering of the sealing layer max. 12 months

Test Reports

Approvals / Standards	ETA-19/0607, Declaration of performance G4C-Zemseal-2024-V.03-ETA Declaration of performance G4C-Zemseal-2024-V.06-13967 AbP as strip sealing and for transitions to waterproof concrete components P-51-20-0263 SP Technical Research Institute of Sweden: Radon resistance

MAX FRANK Group
Max Frank GmbH & Co. KG | Mitterweg 1 | 94339 Leiblfing | Germany | info@maxfrank.com

Product Data

Appearance	PP foil thermally laminated to geotextile composite layer. Additional adhesive impregnation of the composite layer and dimpled structure embossed.
Packaging	Roll width x length: 2,0 m x 20,0 m and 1,0 m x 20,0 m
Storage	The rolls should be stored horizontally in their original packaging, dry and protected from sunlight, snow, ice, water, excessive heat or sources of heat. Storage temperature should be between +5°C and +30°C. Shelf-life min. 24 months from date of manufacture.

Material Properties

basic material	polypropylene (PP)
product declaration	EAD 030378-00-0605
thickness: total value Zemseal® 05 Zemseal® 08 Zemseal® 12	 0,8 mm +/- 0,15 mm 1,0 mm +/- 0,15 mm 1,2 mm +/- 0,15 mm
watertightness EN 1928 B (24h/500 kPa)	5 bar (50 m water column)
Impact resistance EN 12691 (method A – hard surface) Zemseal® 05 Zemseal® 08 Zemseal® 12	 > 350 mm > 500 mm > 650 mm
Resistance to static loading EN 12730 (method B – hard surface)	≥ 35 kg
crack bridging	2 mm at 5 bar (50 m water column)
Water vapour - diffusion resistance number µ	270.000
tear resistance EN 12310-1 (nail shaft) Zemseal® 05	 >290 N (l) and (t)
joint shear resistance EN 12317-2	> 400 N / 50mm
fire behavior EN ISO 11925-2	class E
durability water tightness after artificial ageing EN 1928 B / EN 1296 against chemicals EN 1847 / EN 1928 B	 passed passed
bitumen compatibility EN 1548	passed
processing temperature (ambient / air)	0°C to +50°C (from -10°C up to 0°C possible under certain conditions)
Temperature resistance (foil)	-25°C to +60°C
tracking-proof according to EN 12390-8 and EAD 17-03-0378-06.05	≤ 25 mm
Dangerous substances	no

Disclaimer / Notes:

This product does not require a Safety Data Sheet (SDS) according to REACH as it is not a substance or mixture as defined in Chapter 2, Article 3 of REGULATION (EC) No 1907/2006 (REACH).

All technical data stated in this TDS are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Recommendations with regard to product application given in the present technical data sheet for practical assistance of product users are based on our experience and our present scientific and practical body of knowledge. These recommendations, however, are given without engagement and do not establish a contractual relationship or subsidiary duties. These recommendations do not relieve users of their liability and of their own responsibility to test, whether our product is adequate for the intended purpose of application. Please refer to the latest edition of this Technical Data Sheet on our web presence www.maxfrank.com

MAX FRANK Group
Max Frank GmbH & Co. KG | Mitterweg 1 | 94339 Leiblfing | Germany | info@maxfrank.com