BUILDING COMMON GROUND

MAX FRANK®

Technical Data Sheet

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

Composite, fully-bonded polypropylene sheet membrane system for waterproof construction of below ground structures

Product

Description	**Zemseal® Standard** is a pre-applied, fully and permanently bonded, tracking proof, composite sheet membrane system for waterproof construction. The membrane is self-adhesive and provides for mechanical key into wet concrete and forms a permanent barrier seal. It consists of a polypropylene (PP) membrane, adhesive non-woven geotextile fleece with dimpled surfaces. **Zemseal® Standard** is cold- and pre-applied prior to rebar installation and concrete placement.
Uses	Waterproofing of below ground structures (BS8102:2009 protection grades 1-3, suitable for type A, B and C / DIN EN 1992/DAfStb guidelines for waterproof concrete structures, use categories B, A0-A***) against ground water ingress and damp proofing. Protection of concrete from deleterious chemicals and protection against gas permeation (e.g. radon).
Characteristics / advantages	▪ Cold- and pre-applied prior to reinforcement installation and concrete placement ▪ Tested to 50m hydrostatic head (500 kN/m², 75 lbs/sq-in) ▪ Tracking proof through mechanical bond and adhesion (no lateral movement of water between membrane and concrete) ▪ Wrinkle free installation ▪ Surface cleaning via water jetting ▪ Highly resistant to harmful substances present in soil and groundwater ▪ Flexible and crack-bridging properties ▪ Barrier to water-vapor and gas permeation ▪ Easy installation with self-adhering laps and splices (no tools or torches required) ▪ Durable, permanent seal of concrete surfaces

Test Reports (available upon request)

Approvals / Standards	CE-0800CPR5116022, DoP (EU) Nr. 305/2011 SP Technical Research Institute of Sweden: Radon-Resistance Test Report TU Munich UB-51-17-0196

Product Data

Appearance	Translucent polypropylene rolls with thermically bonded geotextile in two laminated layers, consisting of PP-membrane, adhesive geotextile and bond enhancing dimpled surface
Packaging	Roll width x length: 2,0 m x 20,0 m and 1,0 m x 20,0 m

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Storage

If stored in unopened, undamaged, original packaging and protected from the elements at temperatures between +5°C and +30°C, the shelf-life is at least 24 month from date of production. Keep in dry conditions, horizontally or vertically and do not stack pallets on top of each other.

Material Properties

Chemical base: Polypropylene (PP) – CAS #: 9003-07-0

Product declaration	in accordance w/ BS EN 13967
thickness: *overall* Zemseal® Standard 05 Zemseal® Standard 08 Zemseal® Standard 12	 0,8 mm +/- 0,15 mm 1,0 mm +/- 0,15 mm 1,1 mm +/- 0,15 mm
Water-tightness BS EN 1928 B (24h/500 kPa)	5 bar (50 m WS)
resistance to impact BS EN 12691(A) Zemseal® Standard 05 Zemseal® Standard 08 Zemseal® Standard 12	 > 450 mm > 500 mm > 600 mm
resistance to static loading BS EN 12730 Zemseal® Standard 05 Zemseal® Standard 08 Zemseal® Standard 12	 > 30 kg > 45 kg > 50 kg
water vapour transmission Sd - BS EN 1931 B Zemseal® Standard 05 Zemseal® Standard 08 Zemseal® Standard 12	 > 233 m > 280 m > 305 m
Resistance To Tearing BS EN 12310-1 (nail shank) Zemseal® Standard 05 Zemseal® Standard 08 Zemseal® Standard 12	 L > 1100 N / Q > 1200 N L > 1300 N / Q > 1400 N L > 1400 N / Q > 1500 N
shear resistance of joints BS EN 12317-2	> 420 N/ 50 mm
Reaction to fire test EN ISO 11925-2	class E
Resistance to artificial ageing bei BS EN 1928 B / EN 1296 Resistance to chemical attack BS EN 1847 / EN 1928 B	 pass pass
Compatability to bitumen BS EN 1548	pass
Application temperature (ambient air)	0° to 45°C

Disclaimer / Notes:

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

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