

## Technical Data Sheet

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

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



## Product

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| <b>Description</b>                           | <b>Zemseal®</b> is a pre-applied, fully and permanently bonded, tracking proof, composite sheet membrane system for waterproof construction.   |
| <b>Uses</b>                                  | 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).   |
| <b>Characteristics / advantages</b>          | <ul style="list-style-type: none"> <li>▪ Water-tightness up to 5 bar</li> <li>▪ Tracking proof through mechanical bond and adhesion</li> <li>▪ can be used up to 20 m water column</li> <li>▪ Wrinkle free installation</li> <li>▪ Surface cleaning via water jetting</li> <li>▪ Easy installation</li> <li>▪ suitable for a variety of applications</li> <li>▪ water vapour and gas-retardant</li> <li>▪ Resistance to mechanical stress</li> <li>▪ can be laid on damp subfloors</li> <li>▪ Installation also possible at low temperatures</li> <li>▪ free weathering up to max. 4 months</li> </ul> |
| <b>Test Reports (available upon request)</b> |  |
| <b>Approvals / Standards</b>                 | ETA-19/0607, DoP (EU) Nr. 305/2011<br>SP Technical Research Institute of Sweden: Radon-Resistance<br>Test Report TU Munich UB-51-17-0196   |
| <b>Product Data</b>                          |  |
| <b>Appearance</b>                            | Translucent polypropylene rolls with thermally bonded geotextile in two laminated layers, consisting of PP-membrane, adhesive geotextile and bond enhancing dimpled surface  |
| <b>Packaging</b>                             | Roll width x length: 2,0 m x 20,0 m and 1,0 m x 20,0 m   |

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|---|---|---------------------------|
| <b>Storage</b>  | 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. |                           |
| <b>Material Properties</b>  | basic material  | polypropylene (PP)        |
|   | product declaration   | EAD 030378-00-0605        |
|   | thickness: total value  |                           |
|   | Zemseal® 05   | 0,8 mm +/- 0,15 mm        |
|   | Zemseal® 08   | 1,0 mm +/- 0,15 mm        |
|   | Zemseal® 12   | 1,2 mm +/- 0,15 mm        |
|   | water-tightness EN 1928 B (24h/500 kPa)   | 5 bar (50 m water column) |
|   | Impact resistance<br>EN 12691 (method A – hard surface)   |                           |
|   | Zemseal® 05   | > 350 mm                  |
|   | Zemseal® 08   | > 500 mm                  |
|   | Zemseal® 12   | > 650 mm                  |
|   | Resistance to static loading<br>EN 12730 (method B – hard surface)  |                           |
|   | Zemseal® 05   | ≥ 35 kg                   |
|   | Zemseal® 08   | ≥ 40 kg                   |
|   | Zemseal® 12   | ≥ 45 kg                   |
|   | vapor resistance<br>Sd-value according to EN 1931 B   |                           |
| Zemseal® 05   | > 233   |                           |
| Zemseal® 08   | > 280   |                           |
| Zemseal® 12   | > 305   |                           |
| tear resistance EN 12310-1 (nail shaft)                                   |   |                           |
| Zemseal® 05   | L > 280 N / Q > 360 N   |                           |
| Zemseal® 08   | L > 430 N / Q > 520 N   |                           |
| Zemseal® 12   | L > 450 N / Q > 580 N   |                           |
| joint shear resistance EN 12317-2   | > 260 N/ 50mm   |                           |
| fire behavior EN ISO 11925-2  | class E   |                           |
| durability water tightness<br>after artificial ageing EN 1928 B / EN 1296 | passed  |                           |
| against chemicals EN 1847 / EN 1928 B                                     | passed  |                           |
| bitumen compatibility EN 1548   | passed  |                           |
| processing temperature (ambient / air)                                    | -10°C to +50°C  |                           |
| tracking-proof according to EN 12390-8 and<br>EAD 17-03-0378-06.05        | ≤ 25 mm   |                           |
| Dangerous substances  | no  |                           |

**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](http://www.maxfrank.com)