

Technical data sheet

## BelowGrade

Water sealant coating

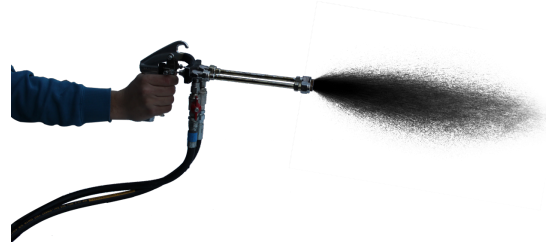
**BelowGrade** is a water based elastomeric bitumen membrane applied as a dual fluid system forming an 'instant-set' coating. When cured this coating functions as a high quality, protective membrane providing excellent protection for concrete surfaces from water penetration, salt or other chemical attack. When cured the membrane is highly elastic and will bridge small cracks that appear in the concrete on settling and is seamless and fully adhered to the surface so no water can get behind the coating. Liquid Rubber **BelowGrade** is cold applied using an airless dual pump applicator for safety and efficiency.

**BelowGrade** is a heavy-duty membrane used wherever concrete needs to be protected from the effects of water, salt or chemical damage both above and below grade. Applications include poured concrete and block foundations, retaining walls, tunnel liners, parking deck structures, concrete water and wastewater containment tanks and ICF (insulated concrete forms).

**BelowGrade** is a water based, environmentally safe alternative to conventional hot applied bitumen or solvent based protective coatings and easier to use than pre-formed plastic sheeting. **BelowGrade** provides excellent waterproofing and chemical resistance through a highly flexible seamless membrane that resists cracking and aging. **BelowGrade** is unaffected by a wide range of mild acids, alkalis, salts and other inorganic chemicals. Unlike adhesive applied sheet membranes, **BelowGrade** prevents tracking of water underneath the membrane, providing superior protection.

### APPLICATION

**BelowGrade** is spray applied using equipment and training provided by Liquid Rubber. **BelowGrade** should be applied to a dry surface, free of dirt, debris, oil or grease and should not be applied when the outside temperature or surface temperature is lower than 5 °C, or rain is expected within 24 hrs of application. Prime coat of the Basic Primer may be applied to open or coarse concrete surfaces prior to the instant setting application. **BelowGrade** is applied between 0.4-0.7 m<sup>2</sup>/liter, depending on the required membrane thickness. Typically, the product is non-tacky in one minute and is largely cured within 48 hrs. **BelowGrade** does not require a protection board to be used and backfilling can begin immediately or as per regional regulations. A crew can apply 500-700m<sup>2</sup> of membrane per day.



### LIMITATIONS

**BelowGrade** should not be applied when the outside temperature or surface temperature is lower than 5 °C. The uncured membrane may be damaged if frozen and should not be applied to wet or frozen surfaces or directly prior to rain. Some surface base coat materials such as coal tar are unsuitable for use with **BelowGrade**. Please consult technical service with any questions.

### CAUTION

For industrial use only. Keep out of the reach of children. Avoid storage below 5 °C. Please consult the Material Safety Data Sheet before using **BelowGrade**.

### TECHNICAL SERVICE

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## PHYSICAL PROPERTIES (liquid)

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PROPERTY	TYPICAL RESULT
Color	Brown to black
Specific gravity (liquid), g/cm <sup>3</sup>	Approx. 1.0
Odour	None
Volatile Organic Compound VOC	Contains no solvents
Solids %	53 – 58%
Viscosity Brookfield CPS	1 - 100
pH	10 – 12

## USAGE

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### CURED MEMBRANE

mm	kg/m <sup>2</sup>	seal
1.00	1.35	airtight
2.00	2.7	watertight

## PERFORMANCE (Cured membrane)

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PROPERTY	TYPICAL RESULT
Color	Black
Specific gravity g/cm <sup>3</sup>	Approx. 1.0
Water absorption NEN-EN-ISO 15148:2002	0.00011kg/m <sup>2</sup> .sec <sup>0.5</sup>
Water vapor transmission NEN-EN-ISO 7783:2011	0.59 g/m <sup>2</sup> *24h
Crack bridging ASTM C1305	Passed
Adhesion to limestone	2,1 n/mm <sup>2</sup>
Adhesion to PVC	1,4 n/mm <sup>2</sup>
Adhesion to zinc	1,9 n/mm <sup>2</sup>
Adhesion to aluminum	2,7 n/mm <sup>2</sup>
Adhesion to concrete	2,07 n/mm <sup>2</sup>
Adhesion to wood	2,9 n/mm <sup>2</sup>
Tensile strength ASTM D638	Passed (>90% original value)
Elongation % ASTM D638	850%
Recovery %	>90%
Salt resistance ASTM B117-09	Passed >1200h
Air permeability ASTM E2178	0.0004 L/(s.m <sup>2</sup> ) at 75 Pa



**DECLARATION OF PERFORMANCE**  
Construction Products Regulation (CPR) EU 305/2011