



## PRODUCT INFORMATION

Product	RaniPlus black, 2500/5000 x 0,500mm
Applications	Earth construction membrane, Radon membrane, Groundwater protection
Type and material	Barriermembrane with gas- and fluidfunction, Type A LDPE, manufacturers materialnumber: 404198

## MECHANICAL PROPERTIES

### Typical values

Tensile Strength	MD	> 500 N/50mm	EN 12311-2
	TD	> 400 N/50mm	
Elongation	MD	> 600 %	EN 12311-2
	TD	> 700 %	
Resistance to tearing (nail shank)	MD	> 200 N	EN 12310-1
	TD	> 200 N	
Resistance to static loading	20 kg	Pass	EN 12730:2001 B
Resistance to impact		300 mm	EN 12691 A
Foldability at low temperature		- 30°C	EN 495-5:2013
Water Vapour Transmission, $Z_v$		> 7,0 x 10 <sup>6</sup> s/m	EN 1931
Water tightness		tight at 2 kPa	EN 1928
Radon transmittance, $P$		< 2,0 x 10 <sup>-8</sup> m/s	SP method
Radon permeability, $k$		< 8 x 10 <sup>-12</sup> m <sup>2</sup> /s	SP method
Resistance to oxidation		> 70%	ISO 13438 B1
Stress crack resistance		> 200h	ASTM D-5397
Friction characteristics	(moraine, sand)	> 20°	EN 12957
	(clay)	> 15°	

### Additional information:

The film is protected against UV-radiation up to 150 kLy. Calculated performance time 50 years, based on theoretical life-time performance in creep-fracture resistance tests, if used in temperatures below +50°C and according to instructions.

The product can be welded using a plastic welder, e.g. one that produces a stream of hot air or/and can accept various types of welding tips, or by joining sheets between sealing bars. Softening temperature for radon membrane 120-130°C, sealing bar recommendation 140 – 250°C, welding temperature should not exceed 350°C. Adjust temperature, sealing speed and sealing time by trial.

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Product Development  
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