

	<h1>Report</h1> <h2>Performance specification</h2> <h3>CR 100 UG, R 200 UG</h3>	Doc. Nr: 100-032649	
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Background

The CR and R UG seals have been designed to work during constant exposure to water and shifting temperatures when installed with cables and pipes.

Test methods

To ensure the performance of the CR and R underground seals extensive testing with cables and pipes in various sizes that corresponds with the whole range of the seals has been performed.

To verify performance during the temperature differences equal to what can be expected in underground applications, temperature cycling tests have been performed on pressurized samples. Seals have been tested in various installations in concrete and steel sleeves. Temperature cycling consists of several temperature fluctuations from +4°C to +40°C during 64h.

Pressure tests have been performed in gas and watertight vessels fitted with calibrated pressure indicator.

To ensure that the seals will maintain tightness if cables are being bent or pulled on, retention and bending tests have been performed.

Cable bending tests were done with seal installed in vessel and pressurized to 0,5bar and cables were bent to an excess of recommended bending radius.

Retention tests were performed with Mecmesin multitest force indicating test instrument.

CR 100 UG is tested in sleeves from 100 to 102mm.

R 200 UG is tested in sleeves from 200 to 202mm.

Tests have been performed at our Test facilities located at Roxtec Sweden.

Performance data

Constant water pressure	(+4-+40°C) 0,3 bar
Catastrophic water pressure	1 bar
Constant gas pressure	0,3 bar
Max cable retention pull R 200 UG	Up to 2470N
Max cable retention pull CR 100 UG	Up to 560N