

[www.assuredtestingservices.com](http://www.assuredtestingservices.com)

388 Servidea Drive  
Ridgway, PA 15853 USA  
T: +1 814-773-3224  
F: +1 814-773-3225

## QUOTATION

<b>To:</b> Adu Oluwalola – Buckler Projects Inc	<b>From:</b> Brian Smith
<b>Phone:</b> 587-707-2772	<b>Pages:</b> 3
<b>EM:</b> <a href="mailto:ade.oluwalola@bucklerprojectsinc.com">ade.oluwalola@bucklerprojectsinc.com</a>	<b>Date:</b> 16 Aug 2018
<b>Re:</b> <b>Quotation</b> – Various Standardized Tests for Waterproofing Membrane Material for Concrete	<b>QN :</b> 081618BUCKP

Ade:

I appreciate the opportunity to offer our services to Buckler Projects, Inc. in support of its outsourced testing needs. Please note that I am offering DIN 1048 Water Penetration Depth Under Pressure as a cost-effective option to USACE CRD C48 Resistance to Hydrostatic Pressure. DIN 1048 offers the advantage of photographic indication of water penetration of the sample following 72 hrs of pressure at a nominal 5 bar. This quotation reflects pricing for the various tests listed below:

- **Compressive Strength** ASTM C109
- **Tensile Strength** ASTM C190
- **Flexural Strength** ASTM C348
- **Modulus of Elasticity** ASTM C469
- **Adhesive Strength / Pull Off Test** ASTM C1583, or ASTM D4541.02, or ASTM D7234 **Steel, Concrete, Wood, Glass, Polystyrene, ~~Perforated Sandcrete Block~~**
- **Positive resistance to hydrostatic pressure** USACE CRD C48 (200 ft head test pressure, highest attainable)
- **Negative resistance to hydrostatic pressure** USACE CRD C48 (200 ft head test pressure, highest attainable)
- **Water Penetration Depth Under Pressure** DIN 1048 (**option to USACE CRD C48 above**)
- **Chloride Permeability** ASTM C1202
- **Abrasion Resistance** ASTM D4060 in lieu of C944
- **Vapor Transmission** E96
- **Freeze Thaw** ASTM C672
- **Impact Strength**

My assumptions are as follows:

- Buckler Projects, Inc. to provide sufficient quantities of the Waterproof Membrane compound in 5 gal kits in order to prepare all samples; quantity TBD based on tests selected.
- The adhesive strength / pull off test IAW ASTM C1583, D4541, or D7234 will be combined, and performed on **Steel, Concrete, Wood, Glass, and Polystyrene**. Assured will source and provide the five (5) substrates. **Commercial "sandcrete" products are unavailable to this laboratory and has not been quoted.**
- It is assumed that the Waterproof Membrane Material is capable of being "cast" monolithically into large-dimension rectangular and cylindrical solids for the requested tests.

Pricing is outlined as follows:

	<b>\$US</b>
<b>Compressive Strength</b> IAW ASTM C109, on aged samples, two ages, 14 day and 28 day, three replicates per age.	\$ 375.00
<b>Tensile Strength</b> IAW ASTM C190, 28 day aged samples only, three replicates	\$ 340.00
<b>Flexural Strength</b> IAW ASTM C348, on aged samples, two ages, 14 day and 28 day, three replicates per age.	\$ 475.00
<b>Modulus of Elasticity</b> IAW ASTM C469, 28 day aged samples only, three replicates	\$ 475.00
<b>Positive resistance to hydrostatic pressure</b> IAW USACE CRD C48 (200 ft head test pressure, highest attainable)	\$ 3045.00
<b>Negative resistance (reverse flow) to hydrostatic pressure</b> IAW USACE CRD C48 (200 ft head test pressure, highest attainable)	\$ 3045.00
<b>Positive Water Penetration Depth</b> DIN 1048 (nominally 5 bar pressure, 72 hrs) <b>OPTION to USACE CRD C48</b>	<b>\$ 900.00</b>
<b>Negative Water Penetration Depth</b> DIN 1048 (nominally 5 bar pressure, 72 hrs) <b>OPTION to USACE CRD C48</b>	<b>\$ 900.00</b>
<b>Chloride Permeability</b> IAW ASTM C1202, two replicates	\$ 595.00
<b>Adhesive Strength / Pull Off Test</b> IAW ASTM D4541 ore equivalent; on <b>Steel, Concrete, Wood, Glass, Polystyrene</b> ; five substrates, three replicate pulls per substrate <b>15 Adhesion Test Pulls</b>	\$ 750.00
<b>Abrasion Resistance</b> ASTM D4060 in lieu of C944, 1000 gm load, 1000 cycles, abradant wheel to be determined, two replicate, 4" x 4" x 0.25", determine mass loss, <b>Two Rotary Abrasions</b>	\$ 100.00
<b>Vapor Transmission</b> IAW ASTM E96, 30 day, two replicates, exposure,	\$ 295.00
<b>Freeze Thaw</b> IAW ASTM C672, two replicates, 50 cycles, 4% CaCO3 solution, exposure	\$ 595.00
<b>Impact Strength</b> IAW ASTM D2794, two replicates, impact to 160 in-lbF max.	\$ 100.00
<b>Sample generation / preparation</b> <i>for all of the above tests</i> (casting, molding, application to concrete substrates as specified, preparation, etc.	\$ 1750.00
<b>Test Report</b>	\$ 95.00
<b>Total; all testing as described and outlined; with USACE CRD C48</b>	<b>\$12,035.00</b>
<b>Total; all testing as described and outlined; with DIN 1048</b>	<b>\$ 7,745.00</b>

**Turnaround: Many tests assume 28 day max cure. Please allow a projected 10-12 weeks total in-house.**

**Terms:**

- A purchase order is required to start testing.
- Payment terms are payment in full before test results are transmitted; 50% down with PO, 50% prior to issue of test report.
- Checks, Money Orders, ACH Transfers, and Visa, Mastercard, and Discover accepted.
- A 5% service charge shall apply to invoice amounts paid by credit card for international transactions.
- ACH transfers are no charge; a \$40 service charge applies to Bank/International wire transfers.
- Progress billing shall apply for any test with a duration longer than 30 days.
- Pricing is in US Dollars.
- Pricing is firm for three (3) months from date of quotation.
- Pricing assumes award of all quoted testing or options.
- Pricing assumes receipt of all samples to permit simultaneous preparation and testing.
- Customer pays all shipping.
- Testing will be conducted to the latest revision of the applicable test specification, method, or practice known to this laboratory at the time of test. The customer is responsible for communicating the desired test specification(s), method(s), or practice(s) and respective revision levels to the laboratory prior to testing.
- Changes in the number of specimens submitted, or specification(s), method(s), or practice(s), or their revisions, payment terms other than 30 days, or addition of other requirements represent a departure from the assumptions upon which this quotation was based, and may result in a change in pricing from that provided in this quotation.
- Assured Testing shall not be responsible for any consequential damages whatsoever, liability in any event shall be limited to the dollar amount of the contract.
- Customer-requested revisions to test reports may result in additional charge.

Ade, we appreciate the opportunity to again offer our testing services and to continue development of our business relationship with you and Buckler Projects, Inc. If you have any questions or require additional information please call me at 814-773-3224 x106.

Thank you!

**B.**

Brian Smith  
Vice President