



**MTEC Mechanical Testing Services**  
 8676 Taub Rd. | Houston, Texas 77064  
 281-469-2609

**WRAITH™ Raw Material**  
 Third Party Test: **Compound E**

ISO 9001-2008  
 ISO/IEC 17025:2005  
 ACCREDITED  
**LAB# W15014245**  
**Certified**  
**10-15-2015 11:32**

Customer:  
**Phenom Innovations, LLC**  
**221 W Airtex Blvd, Stes 105-110**  
**Houston, TX 77090**

PO NO                    PO-0001-Test  
 PART NO              Compound E  
 QTC                     12" long x 2.45 Dia  
 MATL Type            Aluminum Base  
 SPEC                    Customer Supplied



**TEST DATA**

**TENSILE**

UTS PSI	YS.2% PSI	% EL	% RA	BAR DIA	ORIEN	LOC
32467	14214	13.80	15.30	0.5020"	Long	MR

**COMPRESSION**

YS.2% PSI	BAR DIA	ORIEN	LOC	LENGTH
15149	0.4980"	Long	MR	1.5"

**WEIGHT LOSS**

200 Degrees Fahrenheit for 8 hours. Weigh sample at beginning of test and at 1, 2, 3, 4, 6, and 8 hours.  
 Specimen Dimensions: OUTER DIAMETER = 65.20 mm, THICKNESS = 14.70 mm  
 Initial Weight = 127.451g

Hours Weight (g)

- |             |             |
|-------------|-------------|
| (1) 125.573 | (2) 123.398 |
| (3) 119.240 | (4) 115.168 |
| (6) 106.322 | (8) 96.050  |

\*\*\*\*\* SEE ATTACHED REPORT \*\*\*\*\*

*Billy Brown* **Billy Brown, GENERAL MANAGER**

The recording of false, fictitious, or fraudulent statements or entries on this document may be punishable as a felony under federal statute.  
 MTEC is accredited to ISO/IEC 17025:2005 for testing by PJA. Accreditation No 70049. Uncertainty information, pertinent to ISO 17025 Accredited Results, is available upon request.



### RESULTS

Elapsed Time	O.D. (mm)	Thickness (mm)	Weight (g)	Temperature (°F)	Mass Loss (g)	Mass Loss/mm <sup>2</sup>
0 Hour (start)	65.20	14.70	127.451	200	0	0
1 Hour	—	—	125.573	200	1.878	0.000193837
2 Hours	—	—	123.398	200	4.053	0.000418329
3 Hours	—	—	119.240	200	8.211	0.000847496
4 Hours	—	—	115.168	200	12.283	0.001267786
6 Hours	—	—	106.322	200	21.129	0.002180823
8 Hours	—	—	96.05	200	31.401	0.003241044

Surface Area (Start): 9688.50 mm<sup>2</sup>

**TEST PROCEDURE** Actual test procedure for dissolve rates is unknown. Here is the test method we will use:

- Will cut samples from supplied material without the use of coolant.  
*This will be done at a band speed < 50 ipm to prevent overheating.*
- Sample dimensions will be measured.
- Sample will be weighed in grams.
- Sample will then be immersed in **distilled water** at stated test temperature.
- Sample will be removed at the following elapsed times to measure the weight and recorded at: **1, 2, 3, 4, 6, and 8 Hours.**  
*If these do not produce a satisfactory curve, then customer will be contacted for further instructions.*
- After 8 hours the sample will be rinsed in methanol and dried.
- Data will be graphed out on an excel spread sheet for each Compound and emailed to the customer.

MASS LOSS / mm<sup>2</sup>

