

June 18, 2020

Dear Brian,

Please find enclosed the test results for your sample described as:

1. *Sample*

The following test was performed:

1. Thermogravimetric Analysis (TGA)

## Objective

One (1) sample was submitted for analysis. It was noted that the sample is used to make high temperature crucibles and is a ceramic. ***The goal of this analysis was to determine if anything off-gasses from the sample at high temperature via TGA.***

## Summary of Results

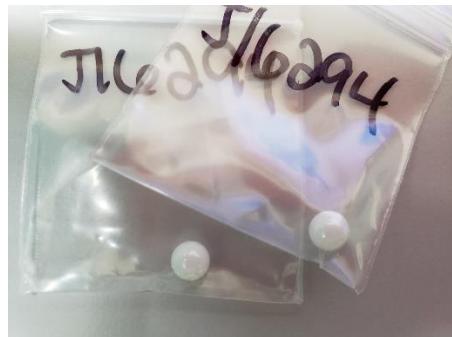
The sample was analyzed by TGA to determine if any components off-gas. No weight loss was detected during TGA under the conditions used. This observation is consistent with no gasses being evolved from the samples.

## Individual Test Results

A summary of the individual test results is provided below. All accompanying data, including spectra, has been included in the data section of this report.

### **TGA**

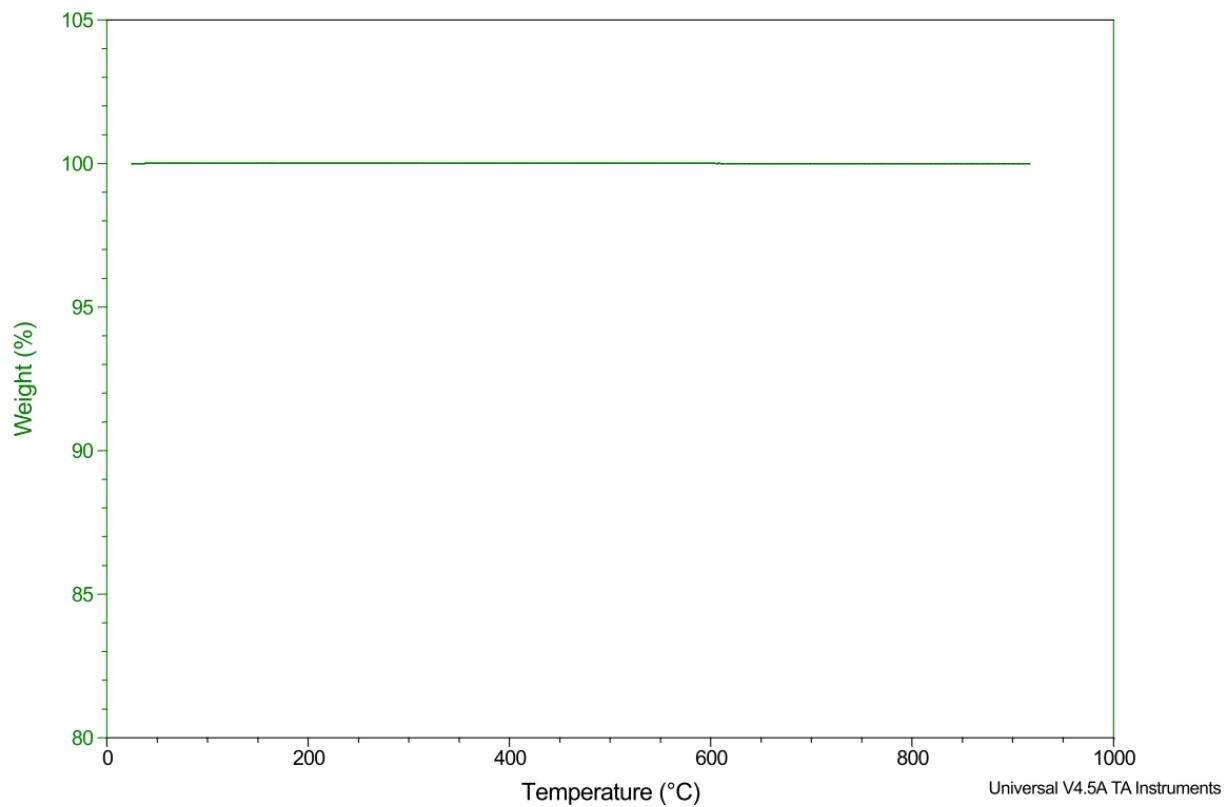
The sample was received as seen in **Figure 1**.



**Figure 1.** Image of *Sample*

*Sample* was subjected to TGA over the temperature range of ambient to 1000 °C, at a rate of 50 °C/min under a nitrogen atmosphere. Analysis was performed in duplicate. For each replicate an entire ball was analyzed. One of the obtained thermograms can be seen in **Figure 2**. Analysis results are shown in **Table 1**. No weight loss was detected during TGA under the conditions used. This observation is consistent with no gasses being evolved from the sample.

Table 1 TGA Weight Loss			
Sample Name	Run	Weight Loss (%)	Average Weight Loss (%)
<i>Sample</i>	1	N.D	N.D
	2	N.D	
N.D = Not detected			



**Figure 2.** Thermogram for *Sample*

## **Analysis Conditions**

### **TGA**

Analysis of samples was accomplished using a TA 500 Thermogravimetric Analyzer in combination with TA Universal Analysis software.

## **Closing Comments**

Jordi Labs' reports are issued solely for the use of the clients to whom they are addressed. No quotations from reports or use of the Jordi name is permitted except as authorized in writing. The liability of Jordi Labs with respect to the services rendered shall be limited to the amount of consideration paid for such services and do not include any consequential damages.

Jordi Labs specializes in polymer analysis and has more than 35 years' experience performing regulatory, quality control and failure testing. We are one of the few labs in the United States specialized in this type of testing. We will work closely with you to help explain your test results and complete your project goals. We appreciate your business and are looking forward to speaking with you concerning these results.

Sincerely,

*Adam Eason*

Adam Eason, M.S  
Senior Chemist  
Jordi Labs LLC