

HELP ME CHOOSE: TESTING THE ECONOMIC EFFICIENCY OF 13-AMP PLUG-IN KILNS

Get
Fired
Up!

We often receive the question how much will it cost to fire my kiln? In order to give you an accurate answer, our technician has decided to fire the same wares with the same program in the Rohde Ecotop 43, Nabertherm top 45 and the Kilncare IKON V46.

We then used the data taken from each of the controllers to give us the KW/H, which could be translated into actual costs. We would like to offer an explanation to the technical exercise as the costs could vary dependent on a customer's experience. Although we have kept everything the same, when you come to fire you are likely to have a different kiln load. You might fire to a different temperature and not for the same amount of time. Your elements will have a different age and the kiln practices of venting and drying may not have been done properly. The firings we did were using the same pots, which were already bisque fired. We used the same number of wares and they were simply wetted to create a bit of humidity. The shelves were the same and they were positioned identically.

The firing of the Bisque temperature was as follows...

0-600°C at 150 d/h, 600-999°C at 215 d/h and no soak.

The firing of the Glaze temperature was as follows...

0-600°C at 180 d/h then 600-1280°C at full power.

These represent a moderately fast firing but one that is common. It must be remembered the kiln can only go as fast as it possibly can with the power it has available, On the first bisque fire, although it was written as 215 degrees an hour, towards that top number the kiln might have slowed a little.



How accurate is this test?

We were relying on the results from each of the controllers, indicating what KW/H were used. It would be more accurate to take readings from the electrical meter, but we were not able to isolate the kiln use amongst other appliances. But the overall result in terms of which kiln is more economical would be true.

The results.

	<i>Bisque firing</i>	<i>Glaze firing</i>
1. Nabertherm top 45	12 KWH	19 KWH
2. Rohde ecotop 43L	13.1 KWH	24.2 KWH
3. Kincare V46	13.4 KWH	25.6 KWH

To calculate the cost simply times these by the rate given by your electrical supplier

Other differently sized kilns, with greater numbers of elements will use more power therefore cost more to run. If you have bought another sized kiln, we at Hot Clay would like to hear from you the KW/H used so please feel free to post your experience in the reviews.