

## ABSTRACT

*Furnace is a heat furnace with a capacity of 14L with a maximum temperature of 1200 ° C that functions in the process of testing the ash content in rubber materials and other tests. The testing process is carried out at a temperature of 550 ° C ± 10 ° C which has been regulated in SNI / ISO 247 Determination of Ash Levels required.*

*To maintain the temperature performance, it is necessary to control continuously and periodically so that furnace temperature deviations can be known, in addition to engine maintenance it is also necessary to verify the actual temperature called calibration activity.*

*Calibration is an activity by comparing temperature directly with thermocouple devices and digital thermometer temperature indicators. Calibration is measured at the temperature used is 550 ° C, calibration is done by taking into account several factors including the results of the calibration tool, environmental factors and the value of the furnace resolution.*

*The results of the furnace calibration obtained a value called correction and measurement uncertainty, is the value of the deviation reading from the actual value and temperature range. From the results of the calibration tool obtained correction value = -5.0 ° C and uncertainty = ± 1.2 ° C, meaning that the actual value of the furnace temperature is = 550 + (-5.0) ± 1.2. This means that if the reading value of the furnace indicator is 550 ° C, the actual value is (543.8 ~ 546.2) ° C. So by carrying out furnace calibration, it can be known the actual value of the furnace temperature, so that action can be taken on the known deviation values.*

*Keywords : Calibration, Furnace, Uncertainty, Traceability, Quality, Statistic*