

How to Use and Maintain Alumina Tube in High temperature Tube furnace

Alumina tube is very brittle and easy to damage. We don't provide any warranty for alumina tube in MTI high temperature tube furnace. You must handle alumina tube very carefully to keep longer service life. Please take following suggestion on how to use alumina tube.

1. Please heat and cool tube furnace slowly. 5 °C/ min is suggested Max heating and cooling rate. Slower is better. **Please never take furnace cooling without control from high temperature to room temperature**, which will cause alumina tube cracking immediately
2. Please always keep inside tube clean. **Never leave some chemical inside tube** to avoid the chemical react with Al₂O₃ tube which will cause tube cracking. Please use a proper crucible contain your sample
3. **Never push a sample into alumina tube when its temperature is hot**
4. Please always remember to put foam refractory block in two end of tube to avoid hot radiation damage O-ring on flange. The ceramic blocks shall locate at edge of furnace case as drawing below
5. Please don't use tube furnace at high vacuum when temperature is > 1500°C. Please always vacuum furnace under cold condition, then fill gas in if you try to heat sample above 1500°C
6. In order to achieve longest tube service life. It is good idea to keep furnace at 200°C in the case we don't use the tube furnace.

