

# Induction Curing Ceramic Fiber

United Induction Heating Machine Limited

We are experienced in Induction Heating, induction heating machine, Induction Heating equipment. They are widely used in induction heating service, induction heat treatment, induction brazing, induction hardening, induction welding, induction forging, induction quenching, induction soldering, induction melting and induction surface treatment applications  
<http://www.uihm.com>

Objective To heat-cure a Nextel™ Ceramic fiber

Material Ceramic fiber 30,000 (9,145) ft(m) Steel tube

Temperature indicating paint

Temperature 1300(700) °F(°C)

Frequency 70 kHz

Equipment Power of 45kW, 50-450 kHz solid-state induction power supply with a remote heat station containing two, 0.75 mF capacitors (total 0.375 mF). A custom designed induction heating coil.

Process A special steel tube and coil combination is used to build an induction heating oven to cure the fiber on a continuous basis. The ceramic fiber travels in an alumina tube inside a hot steel tube. The ID of the alumina is 0.5(13) in(mm) to prevent any build up of the residue. Temperature indicating paint is used to ensure that the fiber is heated to 1300(700) °F(°C) at processing speed. The fiber can be heated to 1300(700) °F(°C)

at a speed of 100(30.5) f/m(m/m) with this setup.

Results/Benefits · Effective removal of the binder in the ceramic fiber

· Ability to continuously process fiber with induction heat. Other non-continuous heating methods don't work.

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