

Argen Z series #3 calculation example For SPEED sintering schedule parameter

PLEASE NOTE: must choose the 90min zirconia material for speed sintering, NOT a normal 6-7 hrs sintering time material for speed sintering.

we don't recommended normal 6-7 hours sintering materials for Speed 90min sintering.

Also, EACH zirconia materials have original firing schedule, please follow the original schedule by transform to Zircom machine schedule

Super Speed Cycle (Total time = 90 minutes)

	Program	Rate/Minute	Temp	Time
stage 1	Heating Ramp	60°C	900°C	
stage 3	Heat Ramp	33°C	1555°C	
stage 4	Hold/Heat Soak		1555°C	45min
stage 5	Cooling Ramp	65°C	800°C	



Transfer to **Zircom SPEED with Carbon tray** Firing programming calculate example

Step 1 900°C-20°C(room temp)=880°C
 $880 \div 60^\circ\text{C}/\text{min} = 14.6(15\text{min})$

Thus, **Step 1 900°C Time 00:15**

Step 2 1555°C-900°C=655°C
 $655 \div 33^\circ\text{C}/\text{min} = 19.84(20\text{min})$

Thus, **Step 2 1555°C Time 00:20**

Step 3 1555°C, Hold 45min

Thus, **Step 3 1555°C Time 00:45**

Step 4 1555°C-800°C=755°C Cooling time
 $755 \div 65^\circ\text{C}/\text{min} = 11.61(12\text{min})$

Thus, **Step 4 800°C Time 00:12 Table position 3 (eg)**

NOTE:Zircom SPEED has both type of trays, Ceramic and Carbon.

As a parameter,**Above 5 hours** sintering use for **Ceramic tray**,

Under 5hours sintering use for **Carbon tray**.

KDF do not recommended Speed sintering for regular Zircom machine.

Also, KDF can sell the Speed firing carbon tray for Zircom Speed machine holder only.

Only Zircom SPEED programming for Very Quick Cooling. Manual page 12

Caution: The quick firing stand and the muffle will be HOT.

Be sure use the tong and heat-resistant glove when placing the firing tray onto the quick firing stand.