

Delayed Release Coating of Garlic Tablets with Nutrateric[®] in a 24" Fully-Perforated Side Vented Pan (Accela-Cota type)

A delayed release coating for nutritional supplements is achieved using Nutrateric[®], nutritional enteric coating system, which is comprised of Surelease[®], aqueous ethylcellulose dispersion, and NS Enteric[®], nutritional enteric component. This coating will withstand exposure to gastric fluid for one hour followed by dissolution within 30 to 60 minutes in a pH 6.8 buffered media.

GENERAL RECOMMENDATIONS

1. Always maintain a negative air pressure in the pan (more air out than in).
2. Minimize tumbling of tablets prior to commencing spray.
3. Inlet air temperature should be maintained to within ± 2 °C target
4. After start-up, allow a minimum of 15 minutes for exhaust temperature to equilibrate before making changes in fluid and/or air flows.
5. Weight gain levels and solids content ratio may vary depending upon substrate, tablet shape and functionality goals.

PAN LOAD:	12.0 - 15.0 kg
INLET AIR VOLUME:	200 - 250 cfm (340 - 425 m ³ /hr)
INLET AIR TEMPERATURE:	70 - 80 °C (158-176 °F)
EXHAUST AIR TEMPERATURE:	While coating, maintain 35 - 45 °C (104 - 113 °F)
EXHAUST AIR VOLUME:	250 - 300 cfm (425 - 510 m ³ /hr)
PREWARM TABLET BED:	40 - 50 °C (104 - 122 °F)
PAN SPEED:	10 - 15 rpm
SPRAY GUNS:	Two, mounted 5 - 7 in. (13 - 18 cm) from rotating tablet bed
FLUID NOZZLE:	Orifice size - 0.040 in. (1.0 mm)
ATOMIZING AIR PRESSURE:	35 - 40 psi (2.25 - 2.75 bar)
PUMPING EQUIPMENT:	Peristaltic type (avoid the use of gear pumps)
FLUID DELIVERY RATE:	50 - 60 g/min
COATING SOLUTIONS:	Optional Sub-coat: Opadry NS, 70W19143 at 7.5% solids Functional Coat: Nutrateric at 10.0% solids
WEIGHT INCREASE:	Optional Sub-coat: Theoretical 1% of tablet weight Functional Coat: Theoretical 4.0% of tablet weight
COATING TIME: (APPROX.)	Optional Sub-coat: 27 - 40 minutes Functional Coat: 80 – 120 minutes

These coating parameters are recommended based on Colorcon trial data. Individual product and machine characteristics may necessitate further process adjustment to achieve optimal results.

Please contact your Colorcon Technical Representative if further technical advice is required.

For more information, contact your Colorcon representative or call:

North America	Europe/Middle East/Africa	Asia Pacific	Latin America
+1-215-699-7733	+44-(0)-1322-293000	+65-6438-0318	+54-11-4552-1565

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