

Coating Process Conditions – Pigmented Formula

Opadry[®] NS is a complete film coating system for nutritional supplements. The coating parameters listed in the table below are based on Colorcon data. Individual product and machine functions should be taken into account and conditions altered as required.

Fully Perforated Side Vented Coating Pan					
Pan Diameter	cm	38.1	60.96	122	152.4
	in	15	24	48	60
Solution Preparation					
Solvent		Purified Water	Purified Water	Purified Water	Purified Water
Solids Content	% w/w	15	15	15	15
Run Objectives					
Theoretical Weight Gain	% w/w	3	3	3	3
Tablet Charge	kg	1.5 - 3.0	12 - 15	120 - 160	320 - 350
Gun Configuration					
Example Spray Gun	Type	Schlick 931/7-1 S22	Spraying Systems 1/8 VAU	Schlick 931/7-1 S35 (ABC)	Manesty
Number of Guns	guns	1	1-2	3 - 4	5 - 6
Fluid Nozzle	type	Standard	VF4078-316SS	Standard	Standard
Nozzle Diameter	mm	1.2	1.02 mm	1.2	1.2
	in	0.05	0.04 in	0.05	0.05
Air Cap	type	Standard (#46 - Horned)	VA113293-60-316SS	ABC - Anti Bearding Cap	Standard (Horned)
Gun to Bed Distance	cm	10	17	25	25
	in	4	7	10	10
Gun to Gun Distance	cm	N/A	10	15	15
	in	N/A	4	6	6
Atomizing Air Pressure	bar	1.4	1.7	2.5	2.5
	psi	20	25	36	36
Pattern Air Pressure	bar	1.4	1.7	2.5	2.5
	psi	20	25	36	36
Process Parameters					
Drying Air Volume	cu.m/hr	250 - 290	424 - 470	2300 - 3060	5440 - 6630
	cu.ft/min	147 - 175	250 - 275	1350 - 1800	3200 - 3900
Pan Speed	rpm*	18	14	8	6
Pre-warm tablet Bed	°C	45 - 50	45 - 50	45 - 50	45 - 50
	°F	113 - 122	113 - 122	113 - 122	113 - 122
Inlet Air Temperature	°C	60	65	65	65
	°F	140	149	149	149
Tablet Bed Temperature	°C	43 - 48	43 - 48	43 - 48	43 - 48
	°F	109 - 118	109 - 118	109 - 118	109 - 118
Spray Rate	g/min	12 - 20	40 - 60	260 - 430	650 - 750
Approximate Coating Times	min	18 - 23	38 - 45	55 - 70	70 - 80
*Pan speed should be set so that even mixing of the bed occurs. This will be influenced by tablet size, shape, friability and baffle type in the pan.					

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