

Coating Parameters – Pigmented Formulations

Opadry® QX, quick and flexible film coating, is a high solids, low viscosity formula that allows coating across a broad range of process parameters in any type of coating equipment. 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				Conventional Pan
Pan Diameter	cm	38	61	122	152	41
	in	15	24	48	60	16
Solution Preparation						
Solvent		Purified Water	Purified Water	Purified Water	Purified Water	Purified Water
Solids Content	% w/w	20 - 35	20 - 35	20 - 35	20 - 35	20 - 35
Run Objectives						
Theoretical Weight Gain	% w/w	3	3	3	3	3
Tablet Charge [†]	kg [†]	1.5 - 3.0	12 - 15	100 - 160	320 - 350	3.0
Gun Configuration						
Example Spray Gun	type	Schlick 931/7-1 S22	Schlick 931/7-1 S35	Schlick 931/7-1 S35	Manesty OptiCoat	Schlick 970/7-1 S75
Number of Guns	guns	1	1-2	3-4	5-6	1
Nozzle Diameter	mm	1.2	1.2	1.2	1.2	1.2
	in	0.05	0.05	0.05	0.05	0.05
Gun to Bed Distance	cm	10	17	25	25	15
	in	4	7	10	10	6
Gun to Gun Distance	cm	N/A	10	15	15	N/A
	in	N/A	4	6	6	N/A
Atomizing Air Pressure	bar	1.0 - 1.4	1.4 - 1.7	1.7 - 2.5	1.7 - 2.5	1.5
	psi	15 - 20	20 - 25	25 - 36	25 - 36	22
Pattern Air Pressure	bar	1.0 - 1.4	1.4 - 1.7	1.7 - 2.5	1.7 - 2.5	1.5
	psi	15-20	20 - 25	25 - 36	25 - 36	22
Process Parameters						
Drying Air Volume	cu.m/hr	170 - 297	254 - 594	2100 - 3060	5440 - 6630	140
	cu.ft/min	100 - 175	150 - 350	1230 - 1800	3200 - 3900	80
Pan Speed*	rpm	16 - 18	10 - 14	5 - 8	4 - 6	20
Pre-warm Tablet Bed	°C	30 - 50	30 - 50	30 - 50	30 - 50	30 - 50
	°F	86 - 122	86 - 122	86 - 122	86 - 122	86 - 122
Inlet Air Temperature	°C	45 - 65	50 - 70	50 - 70	50 - 70	50 - 70
	°F	113 - 149	122 - 158	122 - 158	122 - 158	122 - 158
Tablet Bed Temperature	°C	30 - 50	30 - 50	30 - 50	30 - 50	30 - 50
	°F	86 - 122	86 - 122	86 - 122	86 - 122	86 - 122
Spray Rate	g/min	12 - 20	40 - 60	260 - 430	650 - 750**	15
Approximate Coating Times	min	10 - 22	26 - 38	33 - 56	42 - 70**	17 - 30
*Pan speed should be set so that even mixing of the tablet bed occurs during coating. This will be influenced by tablet size, shape, friability and baffle type in the pan.						
†Tablet charge is dependent on tablet size and shape.						
** Estimated						

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