

Coating Parameters – Pigmented PVA-Based Formulations

Nutrafinish®, dietary supplement coatings are one-step film coating products available in clear, white and pigmented formulations. Developed specifically for food supplements, they provide excellent film forming capabilities including logo definition, high tensile strength and excellent adhesion properties.

The coating parameters listed in the table below are based on Colorcon data for PVA-based pigmented formulations. Individual product and machine functions should be considered and conditions altered as required.

Fully Perforated Side Vented Coating Pan					Conventional Pan	
Pan Diameter	cm	38.1	60.96	122	152.4	40.64
	in	15	24	48	60	16
Solution Preparation						
Solvent		Purified Water	Purified Water	Purified Water	Purified Water	Purified Water
Solids Content	% w/w	20	20	20	20	20
Run Objectives						
Theoretical Weight Gain	% w/w	3	3	3	3	3
Tablet Charge†	kg†	1.5 - 3.0	12 - 15	120 - 160	320 - 350	3
Gun Configuration						
Example Spray Gun	type	Schlick 931/7-1 S22	Spraying Systems 1/8 VAU	Schlick 931/7-1 S35 (ABC)	Manesty	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	1.4	1.7	2.5	2.5	1.4
	psi	20	25	36	36	20
Pattern Air Pressure	bar	1.4	1.7	2.5	2.5	1.4
	psi	20	25	36	36	20
Process Parameters						
Drying Air Volume	cu.m/hr	250 - 290	424 - 470	2300 - 3060	5440 - 6630	140
	cu.ft/min	147 - 175	250 - 275	1350 - 1800	3200 - 3900	80
Pan Speed*	rpm*	18	14	8	6	20
Pre-warm Tablet Bed	°C	45 - 50	45 - 50	45 - 50	45 - 50	45 - 50
	°F	113 - 122	113 - 122	113 - 122	113 - 122	113 - 122
Inlet Air Temperature	°C	60	65	65	65	65
	°F	140	149	149	149	149
Tablet Bed Temperature	°C	45 - 48	45 - 48	45 - 48	45 - 48	45 - 48
	°F	113 - 118	113 - 118	113 - 118	113 - 118	113 - 118
Spray Rate*	g/min	12 - 20	35 - 50	250 - 350	480 - 680	12

*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. †Tablet charge is dependent on tablet size and shape.

*Spray rate numbers are estimated.

The information contained herein, to the best of Colorcon, Inc.'s knowledge is true and accurate. Any recommendations or suggestions of Colorcon, Inc. with regard to the products provided by Colorcon, Inc. are made without warranty, either implied or expressed, because of the variations in methods, conditions and equipment which may be used in commercially processing the products, and no such warranties are made for the suitability of the products for any applications that you may have disclosed. Colorcon, Inc. shall not be liable for loss of profit or for incidental, special or consequential loss or damages.

Colorcon, Inc. makes no warranty, either expressed or implied, that the use of the products provided by Colorcon, Inc., will not infringe any trademark, trade name, copyright, patent or other rights held by any third person or entity when used in the customer's application.

For more information, contact your Colorcon representative or call:

North America
+1-215-699-7733

Europe/Middle East/Africa
+44 (0)-1322-293000

Latin America
+54-11-5556-7700

India
+91-832-6727373

China
+86-21-61982300

You can also visit our website at www.colorcon.com

