

PROTOCOL No.:

PERFORMANCE QUALIFICATION REPORT FOR CARTON CODING MACHINE

EQUIPMENT ID. No.	
LOCATION	Sugar Melting Room
DATE OF QUALIFICATION	
SUPERSEDES REPORT No.	NIL



PROTOCOL No.:

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1.0 REPORT PRE – APPROVAL:

PREPARED BY:

DESIGNATION	NAME	SIGNATURE	DATE
OFFICER/EXECUTIVE (QUALITY ASSURANCE)			

REVIEWED BY:

OPERATING MANAGER (QUALITY ASSURANCE)		
HEAD (QUALITY CONTROL)		
HEAD (ENGINEERING)		
HEAD (PRODUCTION)		

APPROVED BY:

DESIGNATION	NAME	SIGNATURE	DATE
HEAD			
(QUALITY ASSURANCE)			



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2.0 OBJECTIVE:

- To provide documented evidence that the Equipment is performing consistently, repeatedly and reproducibly within its established operating range and the results of all the test parameters meet the pre-defined acceptance criteria.
- To confirm the suitability of the Standard Operating Procedures for all routine activities associated with the system.

3.0 SCOPE:

- The scope of this qualification protocol is limited to qualification of Carton Coding Machine Installed in Sugar Melting Room.
- This report provides all the relevant information of the performance qualification activity, Inprocess observations and analytical data of testing of collected samples.



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4.0 RESPONSIBILITY:

The Validation Group, comprising of a representative from each of the following departments, shall be responsible for the execution of Performance Qualification Report.

DEPARTMENTS	RESPONSIBILITIES					
	Preparation, Approval and Compilation of the Performance					
	Qualification Report.					
Ovality Assurance	Co-ordination with Quality Control, Production and Engineering to					
Quality Assurance	carryout Performance Qualification Activity.					
	Monitoring of Performance Qualification Activity.					
	Post Approval of Performance Qualification Report after Execution.					
	Review of Performance Qualification Report.					
Production	To co-ordinate and support Performance Qualification Activity.					
	Post Approval of Performance Qualification Report after Execution.					
Quality Control	Analytical Support (Microbial Testing/ chemical Analysis).					
	Reviewing of qualification report for correctness, completeness and					
	technical excellence					
Engineering	Responsible for trouble shooting (if occurred during execution).					
	Maintenance & preventive maintenance as per schedule.					
	Post Approval of Performance Qualification Report after Execution.					



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5.0 EQUIPMENT DETAILS:

Equipment Name	SS CARTON CODING MACHINE
ID. Number	
Capacity	1000 Ltr.
Gross Capacity	1200 Ltr.
Manufacturer's Name	Bright Pharma Engineering Pvt. Ltd.
Sr. No.	
Supplier's Name	Bright Pharma Engineering Pvt. Ltd.
Location of Installation	Sugar Melting Area

6.0 PRE – QUALIFICATION REQUIREMENTS:

6.1 Training Record of Validation Team:

All the persons involved in the execution of qualification activity must be trained in all aspects of the qualification activity including the test methodology, acceptance criteria and safety precautions to be followed during working.

6.2 Verification of Documents:

Verify that the DQ/IQ/OQ of Carton Coding Machine has been executed and approved.

Verify that SOP for Operating, Cleaning and Preventive Maintenance of the Carton Coding Machine has been prepared.

S. No.	Document Name	Completed (Yes/No)	Checked By Engineering Sign/Date	Verified By (QA) Sign/Date
1.	Executed and approved DQ Protocol Cum Report			
2.	Executed and approved IQ Protocol Cum Report			
3.	Executed and approved OQ Protocol Cum Report			
4.	Approved PQ Protocol			
5.	SOP for Operating, Cleaning of the Carton Coding Machine			
6.	SOP for Preventive Maintenance of the Carton Coding Machine			



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7.0	TESTS	AND	CHECKS	•

	7.1	Equipment	Volumetric	Capacity	(In Lit	ters) Test
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Name of equipment	Capacity of vessel	
Make	Equipment id no.	

Date of test	Trial no.	Acceptance criteria	Observation
		1000 liter $\pm 0.3\%$	
		200 liter ± 0.3%	
		1000 liter ± 0.3%	
		200 liter ± 0.3%	
		1000 liter $\pm 0.3\%$	
		200 liter ± 0.3%	

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	Manager QA
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7.2	Equipment Volumetric Capacity (In Liters) Test by chemical assay method at Minimum Speed
	of stirrer:

Name of equipment	Capacity of vessel	
Make	Equipment Id no.	
Stirrer Speed	Area	Syrup Mfg. room

Date	Volume of tank	Weight of Nacl	Result	Acceptance criteria
			Assay	
	200 Ltr.			
	400 Ltr.			
	600 Ltr.			0.882% to 0.912%
	800 Ltr.			
	1000 Ltr.			

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	Manager QA
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Name of equipment	Capacity of vessel	
Make	Equipment Id no.	
Stirrer Speed	Area	Syrup Mfg. room

Date	Volume of tank	Weight of Nacl	Result	Acceptance criteria
			Assay	
	200 Ltr.			
	400 Ltr.			0.0000/ / 0.0100/
	600 Ltr.			0.882% to 0.912%
	800 Ltr.			
	1000 Ltr.			

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Name of equipment	Capacity of vessel	
Make	Equipment Id no.	
Stirrer Speed	Area	Syrup Mfg. room

Date	Volume of tank	Weight of Nacl	Result	Acceptance criteria
			Assay	
	200 Ltr.			
	400 Ltr.			0.0000/ / 0.0400/
	600 Ltr.			0.882% to 0.912%
	800 Ltr.			
	1000 Ltr.			

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7.3	Equipment Volumetric Capacity (In Liters) Test by chemical assay method at Maximum Speed
	of stirrer:

Name of equipment	Capacity of vessel	
Make	Equipment Id no.	
Stirrer Speed	Area	Syrup Mfg. room

Date	Volume of tank	Weight of Nacl	Result	Acceptance criteria
			Assay	
	200 Ltr.			
	400 Ltr.			0.0000/ / 0.0400/
	600 Ltr.			0.882% to 0.912%
	800 Ltr.			
	1000 Ltr.			

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Name of equipment	Capacity of vessel	
Make	Equipment Id no.	
Stirrer Speed	Area	Syrup Mfg. room

Date	Volume of tank	Weight of Nacl	Result	Acceptance criteria
			Assay	
	200 Ltr.			
	400 Ltr.			0.0000/ / 0.0100/
	600 Ltr.			0.882% to 0.912%
	800 Ltr.			
	1000 Ltr.			

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Name of equipment	Capacity of vessel	
Make	Equipment Id no.	
Stirrer Speed	Area	Syrup Mfg. room

Date	Volume of tank	Weight of Nacl	Result	Acceptance criteria
			Assay	
	200 Ltr.			
	400 Ltr.			0.0000/ 0.0400/
	600 Ltr.			0.882% to 0.912%
	800 Ltr.			
	1000 Ltr.			

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7.4 Test For Verification Of Uniformity Of Mixing at Minimum Speed of stirrer: Trial No.:01

Date of test	Capacity of vessel	
Name of equipment	Equipment Id no.	
Weight of sodium chloride	Speed	

Sample interval (minute)	Sample Critical variables location		Acceptance criteria	Observation
	Тор	Description	Lump free solution	
After 05	Bottom	Description	Lump free solution	
		Description	Lump free solution	
		рН	5-7	
	Тор	Assay	Assay of active content	
			should be within 0.882%	
			W/V - 0.912% W/V	
After 10		Description	Lump free solution	
	Bottom	pН	5-7	
		Assay	Assay of active content	
			should be within	
			0.882% W/V -	
			0.912%W/V	
	% RSD of Ass	ay	≤ 2%	
		Description	Lump free solution	
		рН	5-7	
	Тор	Assay	Assay of active content	
A.C. 20			should be within	
After 30			0.882% W/V -	
			0.912%W/V	
		Description	Lump free solution	
	Bottom	рН	5-7	



PROTOCOL No.:

Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
		Assay	Assay of active content	
			should be within	
			0.882% W/V –	
			0.912% W/V	
	% RSD of Assay	1	≤ 2%	

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	Manager QA
	Sign/Date:



PROTOCOL No.:

Date of test	Capacity of vessel	
Name of equipment	Equipment Id no.	
Weight of sodium chloride	Speed	

Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
A.C. 05	Тор	Description	Lump free solution	
After 05	Bottom	Description	Lump free solution	
		Description	Lump free solution	
		pН	5-7	
	Тор	Assay	Assay of active content	
			should be within 0.882%	
			W/V - 0.912% W/V	
After 10		Description	Lump free solution	
		рН	5-7	
	Bottom	Assay	Assay of active content should be within 0.882% W/V – 0.912%W/V	
	% RSD of Assa	ay	≤ 2%	
		Description	Lump free solution	
	Тор	pH	5-7	
After 30		Assay	Assay of active content should be within 0.882% W/V – 0.912% W/V	
		Description	Lump free solution	
	Bottom	pH	5-7	



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Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
		Assay	Assay of active content should be within	
			0.882% W/V – 0.912%W/V	
	% RSD of Assay	7	≤ 2%	

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PROTOCOL No.:

Date of test	Capacity of vessel	
Name of equipment	Equipment Id no.	
Weight of sodium chloride	Speed	

Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
After 05	Тор	Description	Lump free solution	
Alter 05	Bottom	Description	Lump free solution	
		Description	Lump free solution	
		рН	5-7	
	Тор	Assay	Assay of active content should be within 0.882% W/V - 0.912% W/V	
After 10		Description	Lump free solution	
	Bottom	рН	5-7	
		Assay	Assay of active content should be within 0.882% W/V – 0.912%W/V	
	% RSD of Assa	y	≤ 2%	
		Description	Lump free solution	
	Тор	рН	5-7	
After 30		Assay	Assay of active content should be within 0.882% W/V – 0.912% W/V	
		Description	Lump free solution	
	Bottom	рН	5-7	
		Assay	Assay of active content should be within	



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Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
			0.882% W/V – 0.912% W/V	
	% RSD of Assay	,	≤ 2%	

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Inference:	
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	Reviewed By
	Manager QA
	Sign/Date:



PROTOCOL No.:

7.5 Test For Verification Of Uniformity Of Mixing at Maximum Speed of stirrer: Trial No.:01

Date of test	Capacity of vessel	
Name of equipment	Equipment Id no.	
Weight of sodium chloride	Speed	

Sample location	Critical variables	Acceptance criteria	Observation
Тор	Description	Lump free solution	
Bottom	Description	Lump free solution	
	Description	Lump free solution	
	рН	5-7	
Тор	Assay	Assay of active content	
		should be within 0.882%	
		W/V - 0.912% W/V	
	Description	Lump free solution	
Bottom	рН	5-7	
	Assay	Assay of active content	
% RSD of Ass	ay	$ \leq 2\% $	
	Description	Lump free solution	
	pН	5-7	
Тор	Assay	Assay of active content should be within	
		0.912%W/V	
	Description	Lump free solution	
Bottom	рН	5-7	
	Bottom Top Bottom Top Top Top	Incation Description Bottom Description Description pH Assay Description pH Assay % RSD of Assay Description pH Assay	Icoation Description Lump free solution Bottom Description Lump free solution Description Lump free solution pH 5-7 Top Assay Assay of active content should be within 0.882% W/V − 0.912% W/V Description Lump free solution pH 5-7 Bottom Assay Assay of active content should be within 0.882% W/V − 0.912% W/V % RSD of Assay ≤ 2% Description Lump free solution pH 5-7 Top Assay Assay of active content should be within 0.882% W/V − 0.912% W/V Description Lump free solution Bottom Description Lump free solution



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Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
		Assay	Assay of active content should be within	
			0.882% W/V – 0.912%W/V	
	% RSD of Assay	7	≤ 2%	

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	Manager QA
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PROTOCOL No.:

Date of test	Capacity of vessel	
Name of equipment	Equipment Id no.	
Weight of sodium chloride	Speed	

Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
	Тор	Description	Lump free solution	
After 05	Bottom	Description	Lump free solution	
		Description	Lump free solution	
		рН	5-7	
	Тор	Assay	Assay of active content	
			should be within 0.882%	
			W/V - 0.912% W/V	
After 10		Description	Lump free solution	
		рН	5-7	
	Bottom	Assay	Assay of active content should be within 0.882% W/V – 0.912%W/V	
	% RSD of Assa	ay	≤ 2%	
		Description	Lump free solution	
		рН	5-7	
After 30	Тор	Assay	Assay of active content should be within 0.882% W/V – 0.912% W/V	
		Description	Lump free solution	
	Bottom	pH	5-7	



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Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
		Assay	Assay of active content should be within	
			0.882% W/V – 0.912%W/V	
	% RSD of Assay	7	≤ 2%	

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Date of test	Capacity of vessel	
Name of equipment	Equipment Id no.	
Weight of sodium chloride	Speed	

Sample interval (minute)	Sample location	Critical variables	Acceptance criteria Observat		
	Тор	Description	Lump free solution		
After 05	Bottom	Description	Lump free solution		
		Description	Lump free solution		
		рН	5-7		
	Тор	Assay	Assay of active content		
			should be within 0.882%		
			W/V - 0.912%W/V		
After 10		Description	Lump free solution		
		рН	5-7		
	Bottom	Assay	Assay of active content should be within 0.882% W/V – 0.912% W/V		
	% RSD of Ass	say	≤ 2%		
		Description	Lump free solution		
		рН	5-7		
After 30	Тор	Assay	Assay of active content should be within 0.882% W/V – 0.912% W/V		
		Description	Lump free solution		
	Bottom	рН	5-7		
		Assay	Assay of active content should be within		



PROTOCOL No.:

Sample interval (minute)	Sample location	Critical variables	Acceptance criteria	Observation
			0.882% W/V – 0.912% W/V	
	% RSD of Assay	,	≤ 2%	

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Production	Quality Assurance
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	Reviewed By
	Manager QA Sign/Date:



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8.0 CHECKLIST OF ALL TESTS AND CHECKS:

Tests or checks	Executed [Yes/No]	Remark
Equipment Volumetric Capacity (In Litres) Test		
Verification of Volume of Solution by assay of sodium		
chloride		
Test For Verification Of Uniformity Of Mixing		

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Production	Quality Assurance
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9.0 DOCUMENTS ATTACHED:

- Test Report from QC lab
- Any other Relevant Documents.
- Training Record

	Truming Record
10.0	NON COMPLIANCE:
11.0	DEVIATION FROM PRE-DEFINED SPECIFICATION, IF ANY:
1110	
12.0	CHANGE CONTROL, IF ANY:
13.0	REVIEW (INCLUSIVE OF FOLLOW UP ACTION, IF ANY):
14.0	CONCLUSION:
	••••••
15.0	RECOMMENDATION:
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PROTOCOL No.:

16.0 ABBREVIATIONS:

% : Percentage

cGMP : Current Good Manufacturing Practices

CQA : Corporate Quality Assurance

DQ : Design Qualification

ID. : Identification

IQ : Installation Qualification

LTD. : Limited

MBM : Carton Coding Machine

Nacl : Sodium Chloride

No. : Number

OQ : Operational Qualification

PPQ : Performance Qualification Protocol

PVT : Private

RPQ : Report performance qualification

RSD : Relative standard deviation

SOP : Standard Operating Procedure



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17.0 REPORT POST APPROVAL:

PREPARED BY:

DESIGNATION	NAME	SIGNATURE	DATE
OFFICER/EXECUTIVE (QUALITY ASSURANCE)			

REVIEWED BY:

OPERATING MANAGER (QUALITY ASSURANCE)		
HEAD (QUALITY CONTROL)		
HEAD (ENGINEERING)		
HEAD (PRODUCTION)		

APPROVED BY:

DESIGNATION	NAME	SIGNATURE	DATE
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(QUALITY ASSURANCE			