

Short Communication

Purchasing and Inspection Test Plan of a large paper tube & paper core manufacturing industry

¹Dilip Kumar Adhwarjee, ²M.C.Majumder, ²Nilotpal Banerjee,

¹DR.B.C.Roy Engineering College, Durgapur, West Bengal University of Technology, INDIA

²National Institute of Technology, Durgapur, Deemed University, INDIA

E-mail: adhwarjeevicky_48@rediffmail.com

Abstract

Purchasing section establishes the measures to be taken for reliable and cost effective purchasing of raw materials, selected components and accessories. Manager (purchase) & Manager (accounts and stores) are jointly responsible for timely procurement of raw materials and components as per laid down specifications. The purchase orders are given to approve vendors only. After purchase of raw materials and components, these are inspected as per the laid down test plan. The author here gives details of vendor's assessment criteria and test plan of inspection. **Copyright © IJEATR, all rights reserved.**

Keywords: Vendor, Specification, GSM, BS, Acceptance, Rating

1. Procedure

1.1 Evaluation of Sub-Contractor

Manager (purchase) collects all the relevant information of Sub-Contractors and registers them in the prescribed Vendor registration format. He then approves them based on their technical ability, delivery capability, quality system. He approves the vendor whose rating (in the scale 0- 100) is above 50. He does the quarterly vendor rating of each Sub-contractor. He does the deletion based on the assessment when the Sub-Contractor gets less than or equal to 50 marks in the two consecutive quarterly evaluations. A warning is given after the first evaluation.

VENDOR'S ASSESSMENT FORM

Name of Vendor:

Product supplied:

Period of Assessment:

SR NO	PURCHASE ORDER NO	QUANTITY ORDERED	QUANTITY RECEIVED	QUANTITY PASSED	DATE OF DELIVERY	ACTUAL DELIVERY	DELAY

FORMULA FOR VENDOR RATING : Formula (A)

TOTAL QUANTITY PASSED

1) % Acceptance = ----- X 100

TOTAL QUANTITY RECEIVED

% ACCEPTANCE	MARKS
100	50
91-99	40
76-90	30
60-75	20
51-59	10
<= 50	0

- The Vendor should get minimum quality rating as 30 on the basis of % acceptance

TOTAL DELAYS IN DAYS

2) Average Delay = ----- X 100

NO OF ORDERS

AVERAGE DELAY IN DAYS	MARKS
0	40
1-3	30
4-8	20
9-12	10
>12	0

*The vendor should get a minimum 20 marks for promptness in delivery

3) General : Service = 5

Response = 5

Formula (B)

1) DELIVERY :

No of lots delivered on time

X = _____ x 40

Total no of lots delivered

2) QUALITY :

No of lots accepted

$$Y = \frac{\text{No of lots accepted}}{\text{Total no of lots delivered}} \times 40$$

Total no of lots delivered

3) SERVICE :

Each vendor is to be given marks out of 20 depending upon the collective decision of manager (production), manager (TQM), and manager (purchase)

$$Z = \text{Service} = 20$$

$$4) \text{ Total rating} = X + Y + Z$$

*If total score is above 50 , continue with the vendor. Otherwise give a warning to the vendor that he will be deleted in the next time for the same or less performance.

1.2 RAW MATERIAL TEST PLAN FOR PAPER/ PAPER BOARD

TEST PLAN NO 1: PARAMETER = GSM (Gramme per square metre)

LOT SIZE (REELS)	SAMPLE SIZE (REELS)	NO OF READING/ SAMPLE	INSTRUMENT	ACCEPTANCE CRITERIA	REJECTION NO ALLOWED
>30	10	2	ELECTRONIC WEIGHING SCALE	+/- 10% OF Standard	1
20-30	8	2	-DO-	-DO-	1
10-19	6	2	-DO-	-DO-	1
4-9	4	2	-DO-	-DO-	1
<4	1	2	-DO-	-DO-	0

TEST PLAN NO 2: PARAMETER = BS (Bursting Strength)

LOT SIZE (REELS)	SAMPLE SIZE (REELS)	NO OF READING/ SAMPLE	INSTRUMENT	ACCEPTANCE CRITERIA	REJECTION NO ALLOWED
>30	10	3	BS TESTER	BS >= STD.BS - 0.5 KG/CM ²	1
20-30	8	3	-DO-	-DO-	1
10-19	6	3	-DO-	-DO-	1
4-9	4	3	-DO-	-DO-	1
<4	1	3	-DO-	-DO-	0

* The above test plans are accepted by the CEO of the plant and also by the third party certifying agency like TUV Cert. And accepted as per the quality level at present.

2. Conclusion

The author implemented Quality Management System in a large paper tube and paper core manufacturing industry and this write up is the result of his long consultancy works in that industry. However this procedure

can also be implemented to other paper industry and can be modified as per the requirements of their quality standard

3. Scope for further research

The author has used test plans for two parameters i.e GSM & BS which are vital. There are other parameters like CALIPER, etc. Test plan for TOP PAPER (PARCHMENT) can also be made for colour bleeding, etc.

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