

Generating Certificates of Analysis to Customer Specification: Examples

Our manufacturer, Acme Quality Products, makes a product that is tracked internally as item number ABPLASTICFLAKE.

A production run for this material runs for many hours, on multiple production lines and across multiple work shifts. During a given production run, Acme confirms that the material meets consistent standards by testing production at specific intervals. At each interval, they perform 6 different tests to ensure the product conforms to requirements. Acme then produces certificates of analysis (COA) for the customers who purchase this material, reporting on the data collected during these testing intervals.

Each customer has a different requirement for the data that appears on a certificate of analysis. For some customers, only simple format changes are requested. Other customers require that their part number (which Acme will call the External Part Number) must appear on the COA.

Customer Requirements: Story 1 to 5

Here are the customer specifications. Each story has a certificate example supplied. The original data is provided in this document.

Story 1:

Customer: Central Distributing

Requirement: Provide average data for test results for the following 5 tests. No tolerance or specification data is required on the certificate. Tests must list in order specified.

Tests: Color, DI/G, Melt Point, Moisture %, B*

Story 2:

Customer: Heartland Tower System

Requirement: Provide average data for test results for the following 3 tests. No tolerance or specification data is required on the certificate. Tests must list in order specified.

Tests: Moisture %, DI/G, Color

Story 3:

Customer: Metropolitan Fiber Systems

Requirement: Provide test result data that is an average of the data collected and also provide the lowest and highest values recorded for each test. The following 5 tests must be included and presented in the order specified.

Tests: Color, DI/G, Melt Point, Moisture %, B*

Story 4:

Customer: Aaron Fitz Electric

Requirement: Provide test result data that is the average of the data collected and include in the presentation the required specifications, including the upper and lower tolerance range. The following 5 test should be include and presented in the order specified.

Tests: Color, DL/G, Melt Point, Moisture %, B*

Story 5:

Customer: Bakers Emporium

Requirement: Certificate must show the ordering part number from Baker’s Emporium (in this case it is CDPLASTICFLAKE). Additionally the tolerance specification from Baker’s is different than the standard production specification at Acme. Therefore the specifications required by Baker’s must be shown on the documentation. The results should be averages of all test data and be presented in the defined order.

Tests: Color, DI/G, Melt Point, Moisture %, B *

Raw Data Entered to Support Example Creation

There are two inspection procedures consisting of multiple tests that are run at intervals on the production line. As part of the record keeping the production line used is defined in the header record as well as the time that testing or sample acquisition occurred. This is the data for each of those inspection processes.

Item is ABPLASTICFLAKE

Reference Type: Work Order, WO # is WO000001

Inspection is: ABCOLOR001

Lot is AB9901

Batch Qty. = 1

Production line = Line B

Day = Tues

DOC #	time		Color	Yellow	Version
-0008	8:00 a.m.		57.6	-0.8	A.1.0
-0009	11:00 a.m.		55.4	-1.6	A.1.0
-0010	2:00 p.m.		54.8	-1.4	a.1.0

Item is ABPLASTICFLAKE

Reference Type: Work Order, WO # is WO000001

Inspection is: ABALLPROP

Lot is AB9901

Batch Qty. = 1

Production line = Line B

Day = Tues

Doc #	Time		Melt	Moist	IV
-004	9:00 a.m.		391	7.8888	0.794
-005	12:00 p.m.		372	8.0022	0.764
-006	3:00 p.m.		356	7.9494	0.894



Certificate of Analysis

Acme Quality Products

Southern Master Production Facility
11654 New House Road
Best Town, CA 92078
(800) 123-4567

Customer: Central Distributing
Sales Doc #: INVS3001
Internal Item: ABPLASTICFLAKE
Description: reacted plastic flake
Work Order: WO 90543
Trailer ID: LTL 950431
Destination Country: CANADA
BOL: TTLK 8854

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Lot Number(s)

AB9901

Test	Results	UOM
Color	55.9	scale
DI/G	0.817	DI/G
Melt Point	373	degre F
Moisture %	7.9468	% Percent
B*	-1.3	scale



Certificate of Analysis

Acme Quality Products

Southern Master Production Facility
11654 New House Road
Best Town, CA 92078
(800) 123-4567

Customer: Heartland Tower Systems
Sales Doc #: ORDST2065
Internal Item: ABPLASTICFLAKE
Description: reacted plastic flake
Work Order: WO 90543
Trailer ID: LTL 905431
Destination Country: CANADA
BOL: TTLK 8854

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Lot Number(s)

AB9901

Test	Results	UOM
Moisture %	7.9468	% Percent
DI/G	0.817	DI/G
Color	55.9	scale

Acme Quality Products

Southern Master Production Facility
11654 New House Road
Best Town, CA 92078
800 123-4567



Certificate of Analysis

Internal Item: ABPLASTICFLAKE
Description: reacted plastic flake
Customer: Metropolitan Fiber Systems
Customer Item ID: ABDRUM20FLAKE
Sales Doc #: ORDST2099
Work Order: WO 90543
Trailer ID: LTL 950431
BOL: TTLK 8854

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Lot Number(s)

AB9901

Testing Results

Test	Average	Min	Max
Color	55.9	54.8	57.6
DI/G	0.817	0.764	0.894
Melt Point	373	356	391
Moisture %	7.9468	7.8888	8.0022
B*	-1.3	-1.6	-0.8

Data Confidential and Property of Acme Quality Products



**Acme Quality
Products**

Certificate of Analysis

Southern Master Production Facility
11654 New House Road
Best Town, CA 92078
(800) 123-4567

Item ID ABPLASTICFLAKE

Customer: Aaron Fitz Electrical

Description reacted plastic flake

Work Order: WO 90543

Trailer ID LTL 90543

BOL TTLK 8854

Sales Doc #: INVS3008

Lot Number(s)

AB9901

Certified Results

Test	Results	UOM	Target	+Tol	- Tol
Color	55.9	scale	52.5	7.0	4.0
DI/G	0.817	DI/G	0.888	0.450	0.050
Melt Point	373	degre F	375	25	20
Moisture %	7.9468	% Percent	7.7770	1.0000	0.5000
B*	-1.3	scale	-1.9	-0.5	-0.9

Data presented in this document is confidential and delivered per internal document AB304
Inquiries should be addressed to personel@labmagt

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**Acme Quality
Products**

Certificate of Analysis

Southern Master Production Facility
11654 New House Road
Best Town, CA 92078
(800) 123-4567

Production Item ABPLASTICFLAKE

Customer: Baker's Emporium Inc.

Description reacted plastic flake

Work Order: WO 90543

Trailer ID LTL 95043

BOL TTLK 8854

Sales Doc #: ORDST1025

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Customer Sell As Item ID CDPLASTICFLAKE

Lot Number(s)

AB9901

Certified Results

Test	Results	UOM	Target	+Tol	- Tol
Color	55.9	scale	57.0	2.0	2.0
DI/G	0.817	DI/G	0.750	0.075	0.050
Melt Point	373	degre F	360	40	20
Moisture %	7.9468	% Percent	8.0000	0.5000	0.5000
B*	-1.3	scale	-1.9	-0.5	-0.9

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