

Operator: Validation Manager Vessel: Retort
 Process: Validation Product: Food
 Session Start: 22-11-2013 09:31:31 Time Zone: UTC offset 01:00:00
 Session Stop: 22-11-2013 09:31:37
 Session Name: Retort Validation
 Session Text:



Advanced Validation Report

Name: Advanced Validation Report
 Description:
 Cycle:
Total Test Result: Passed

Input parameters

Process Temperature: 119,00 °C
 Process Band (K): 6,00
 Process Upper Band (K): 3,00
 Process Lower Band (K): 3,00
 Maximum Process Time: 03:55:00
 Mode: Heat Distribution with Ambient only
 Heat Penetration with Core
 Define Periods by: Time Markers
 Maximum Temperature Fluctuation (K): 4,00
 Maximum Temperature Difference (K): 1,00
 Maximum Come Up Time: 00:12:00
 Minimum Holding Time (Total): 03:00:00
 Minimum Holding Time (Continuous): 03:00:00
 Maximum Holding Time (Total): 04:00:00
 Maximum Cooling Time: 00:20:00

Process Time

Process Start Time: 09-04-2007 18:46:37
 Process End Time: 09-04-2007 22:28:23
 Process Duration: 03:41:46
 Max. Allowed Process Duration: 03:55:00
 Process Test Result: Passed

Heat Distribution

Cold Zone:	115,76 °C	09-04-2007 18:57:33	TA14948 - Ch 12
Hot Zone:	116,00 °C	09-04-2007 18:57:33	TA14937 - Ch 15
Delta:	0,24 °C		

Come Up Time

Come Up Start Time: 09-04-2007 18:46:37
 Come Up End Time: 09-04-2007 18:57:33
 Come Up Duration: 00:10:56
 Max. Allowed Come Up Duration: 00:12:00
 Come Up Test Result: Passed

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Holding Time

Holding Start Time:	09-04-2007 18:57:33		
Holding End Time:	09-04-2007 22:23:37		
All Holding Times (Start, End, Duration):	09-04-2007 18:57:39	09-04-2007 18:57:43	00:00:04
	09-04-2007 18:57:49	09-04-2007 22:23:37 (1)	03:25:48
Holding Duration (Total):	03:25:52		
Holding Duration (Cont.):	03:25:48		
Min. Allowed Holding Duration (Total):	03:00:00		
Min. Allowed Holding Duration (Cont.):	03:00:00		
Max. Allowed Holding Duration (Total):	04:00:00		
Holding Test Result:	Passed		

Homogeneous Band

Homogeneous Temperature (K):	0,75
Max. Allowed Homogeneous Temperature (K):	1,00
Homogeneous Temperature Test Result:	Passed

Fluctuation Band

Temperature Fluctuation (K):	2,98
Max. Allowed Temperature Fluctuation (K):	4,00
Temperature Fluctuation Test Result:	Passed

Summary Report in Holding Time

Sensor ID	Name	Fluctuation (°C)
11	TA14940 - Ch 11	2,93
12	TA14948 - Ch 12	2,98
13	TA14934 - Ch 13	2,60
15	TA14937 - Ch 15	2,66

Cooling Time

Cooling Time Start:	09-04-2007 22:23:37
Cooling Time End:	09-04-2007 22:28:23
Cooling Duration:	00:04:46
Max. Allowed Cooling Duration:	00:20:00
Cooling Test Result:	Passed

Lethality Calculation

Min. Allowed Lethality Value in Process Time:	11,00
Max. Allowed Lethality Value in Process Time:	18,00
Lethality - Reference Temperature:	121,11 °C
Min. Temperature for Lethality-Calculation:	91,11 °C
Lethality - Z-Value:	10 °C

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Individual Analysis

Name	Lethality value in Process Time	Lethality Status
Lethality - TC14941 - Ch 1	15,29	Passed
Lethality - TC14945 - Ch 2	12,47	Passed
Lethality - TC14935 - Ch 3	12,60	Passed
Lethality - TC14939 - Ch 4	15,10	Passed
Lethality - TC14944 - Ch 5	15,86	Passed
Lethality - TC14933 - Ch 6	15,69	Passed
Lethality - TC14938 - Ch 7	13,86	Passed
Lethality - TC14936 - Ch 8	12,01	Passed
Lethality - TC14947 - Ch 9	13,39	Passed
Lethality - TC14946 - Ch 10	12,35	Passed
Lethality - TC14942 - Ch 16	11,88	Passed

Process Time

Lethality Min.:	Lethality - TC14942 - Ch 16	11,88
Lethality Max.:	Lethality - TC14944 - Ch 5	15,86
Lethality Delta:		3,98

Lethality overview

Sensor ID	Name	Lethality value in Come Up Time	Lethality value in Holding Time	Lethality value in Cooling Time
1	TC14941 - Ch 1	0,00	13,98	1,31
2	TC14945 - Ch 2	0,00	11,31	1,17
3	TC14935 - Ch 3	0,00	11,45	1,15
4	TC14939 - Ch 4	0,00	13,88	1,22
5	TC14944 - Ch 5	0,00	14,58	1,28
6	TC14933 - Ch 6	0,00	14,57	1,12
7	TC14938 - Ch 7	0,00	12,61	1,24
8	TC14936 - Ch 8	0,00	10,92	1,09
9	TC14947 - Ch 9	0,00	12,21	1,18
10	TC14946 - Ch 10	0,00	11,17	1,18
16	TC14942 - Ch 16	0,00	10,73	1,14

Come Up Time

Lethality Min.:	TC14941 - Ch 1	0,00
Lethality Max.:	TC14941 - Ch 1	0,00
Lethality Delta:		0,00

Holding Time

Lethality Min.:	TC14942 - Ch 16	10,73
Lethality Max.:	TC14944 - Ch 5	14,58
Lethality Delta:		3,85

Cooling Time

Lethality Min.:	TC14936 - Ch 8	1,09
Lethality Max.:	TC14941 - Ch 1	1,31
Lethality Delta:		0,22

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(1) Calculated End Holding Time exceeds limit set by the End Holding Time Marker

SAMPLE