Belgian Christmas



Author: JCHK
Category: 18 - Belgian Strong Ale
Subcategory: E - Belgian Dark Strong Ale

Kettle Volume:	75,18 L (1,108)	Efficiency:	75%
Boil Duration:	1,0 h	Attenuation:	75,0%
Evaporation:	1,89 L	Evap./Hour:	1,89 L
Water Volume Added:	29,64 L		
Final Volume:	100,0 L (1,081)		

Ingredients:

30 kg (81,2%)	Pale Ale Malt; Weyermann - added during mash
2,5 kg (6,8%)	Munich Malt Type 2 (Organic); Weyermann - added during mash
1,25 kg (3,4%)	Caramunich® TYPE Ⅲ; Weyermann - added during mash
0,8 kg (2,2%)	Cara-amber®; Weyermann - added during mash
0,8 kg (2,2%)	Cara-aroma®; Weyermann - added during mash
0,8 kg (2,2%)	Chocolate Wheat Malt; Weyermann - added during mash
0,8 kg (2,2%)	Light Brown Sugar - added during mash
165 g (67,3%)	Perle (8,3%) - added during boil, boiled 25 m
1250,0 g	Raisins - added during boil, boiled 15 m
130 g	Cinnamon (stick) - added during boil, boiled 15 m
80 g (32,7%)	Organic Hallertau (8,0%) - added during boil, boiled 5 m
80 g	Irish Moss - added during boil, boiled 5 m
4 ea	White Labs WLP060 American Ale Yeast Blend

Style:

	Recipe	Guideline
Original Gravity:	1,081	1,075 - 1,110
Terminal Gravity:	1,020	1,010 - 1,024
Color:	23,0 SRM	12,0 - 22,0
Alcohol:	8,04%	8,0% - 11,0%
Bitterness:	25,0	20,0 - 35,0



Analysis:

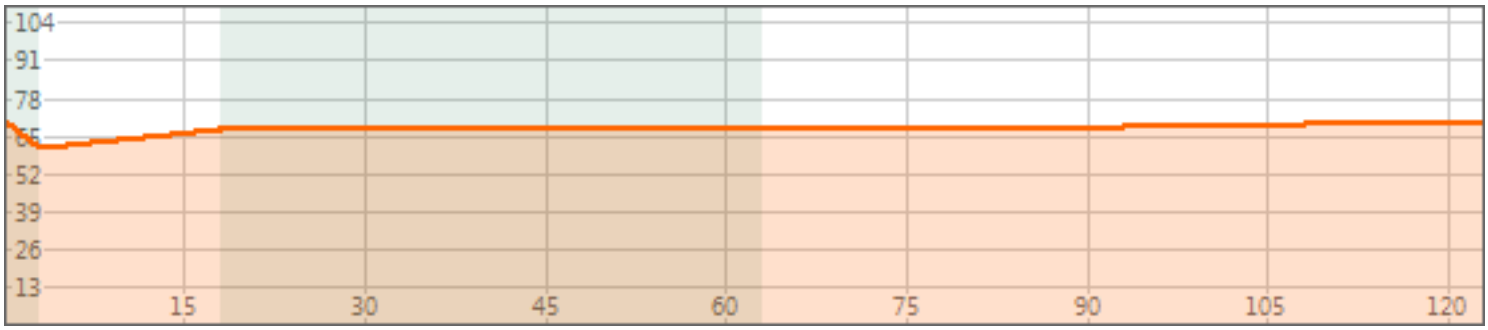
	Apparent	Real	Weight	Calories
Original Extract:	19,56 °P	19,56 °P	Alcohol: 22,66 g	156,38 kcal
Attenuation:	75,0%	59,5%	Carbs: 28,34 g	107,7 kcal
Terminal Extract:	5,15 °P	7,93 °P	Protein: 1,98 g	7,94 kcal
% Alcohol:	8,04% ABV	6,26% ABW		Total: 272,01 kcal

Schedule:

Ambient Air:	20 °C
Source Water:	70 °C
Elevation:	0,0 m

	Elapsed	Thickness	Final Temp.	Available
3,0 m Mash in	00:03:00	2,0 L/kg	62,0 °C	35,83 L
Liquor: 72,3 L				
Strike: 71,0 °C				
Target: 62,0 °C				

	Elapsed	Thickness	Final Temp.	Available
15,0 m Rest *Heat: 15,0 m* *Target: 68,0 °C*	00:18:00	2,0 L/kg	68,0 °C	35,95 L
45 m Rest *Rest: 45 m* *Final: 68,0 °C*	01:03:00	2,0 L/kg	68,0 °C	35,95 L
60,0 m Sparging *Sparge #1* *Volume: 18,0 L* *Temperature: 75,6 °C* *Duration: 30 m* *Sparge #2* *Volume: 20,0 L* *Temperature: 80 °C* *Duration: 30 m* *Total Runoff: 74,03 L*	02:03:00	0,0 L/kg	71,0 °C	0,0 L



Carbonation:

Natural Conditioning		Forced Carbonation	
Beer Temp:	20 °C	Beer Temp:	45,0 °F
Priming Agent Rate:	4,02 g/L	Pressure:	10,26 PSI
Priming Agent Mass:	500,0 g	Volumes CO2:	2,11
Volumes CO2:	2,11		

Notes: