

9 EBC

SMaSH Sabro - 6.6%

Specialty IPA Brewer: The Thirsty Otter

Type: All Grain

IBU : 63 (Tinseth) BU/GU : 1 : 9 EBC Colour Carbonation : 2.6 CO2-vol

Pre-Boil Gravity : 1.047 Original Gravity : 1.061 : 1.063 Total Gravity Final Gravity : 1.013

Fermentables (1.5 kg)

1.5 kg - Golden Promise Pale Ale Malt 5 EBC (... ^ Lot # 694-201130-111430-176081-1/1

^ The Malt Miller (UK) MAL-00-034

30 g - Bottling - Sugar, Table (Sucrose) 2 EBC

^ Albert Heijn (NL)

Hops (44.4 g)

15 min - 6.4 g - Sabro (T90) - 14.8% (23 IBU) ^ Lot # 694-201130-111430-176081-HOP-05-024-R...

^ The Malt Miller (UK) HOP-05-024

10 min - 6.4 g - Sabro (T90) - 14.8% (18 IBU)

^ Lot # 694-201130-111430-176081-HOP-05-024-R...

^ The Malt Miller (UK) HOP-05-024

5 min - 6.4 g - Sabro (T90) - 14.8% (12 IBU)

^ Lot # 694-201130-111430-176081-HOP-05-024-R...

^ The Malt Miller (UK) HOP-05-024

Hop Stand

20 min hopstand @ 80 °C

20 min 80 °C - 12.6 g - Sabro (T90) - 14.8% (...

^ Lot # 694-201130-111430-176081-HOP-05-024-R...

^ The Malt Miller (UK) HOP-05-024

Dry Hops

7 days - 12.6 g - Sabro (T90) - 14.8%

^ Lot # 694-201130-111430-176081-HOP-05-024-R...

^ The Malt Miller (UK) HOP-05-024

01 Brouwpunt 5L (60min) (rev 4)

Batch Size : 5.6 L Boil Size : 7.76 L Post-Boil Vol : 5.96 L

Mash Water : 4.5 L Sparge Water : 4.82 L Boil Time : 60 min Total Water : 9.32 L

Brewhouse Efficiency: 71.8% Mash Efficiency: 73.3%

Mash Profile

10 American DIPA (75 min)

67.6 °C - Strike Temp

62 °C - 45 min - Stir frequently

68 °C - 30 min - Stir frequently

Fermentation Profile

01 Ale + DR + Conditioning

17 °C - 10 days - Primary

21 °C - 4 days - Diacetyl rest

17 °C - 14 days - Carbonation

15 °C - 28 days - Conditioning

Water Profile

NL Spa Reine Flat Mineral Water (www.ah.nl) (...

Ca 100 Mg 11 Na 3 Cl 134 SO 93 HCO 17

SO/Cl ratio: 0.7 Mash pH: 5.41 Sparge pH: 6

Measurements

Mash pH: 5.38

Boil Volume: 8

Pre-Boil Gravity: 1.043

Post-Boil Kettle Volume: 6.51

Original Gravity: 1.060

Fermenter Top-Up:

Fermenter Volume: 5.5

Final Gravity: 1.005

Bottling Volume: 4.33



```
Miscellaneous
Mash - 5.83 g - Calcium Chloride (CaCl2) 33 %...
^ Lot # 115038
^ Brouwstore (NL) 055.035.0
Mash - 0.86 g - Epsom Salt (MgSO4)
^ Lot # /2119000091
^ Brouwstore (NL) 055.027.7
Mash - 0.88 g - Gypsum (CaSO4)
^ Brouwmaatje (NL)
Mash - 4.5 l - NL Spa Reine Flat Mineral Water
^ Lot # 20210413
^ AH (NL)
Sparge - 4.5 l - NL Spa Reine Flat Mineral Water
^ Lot # 20210413
^ AH (NL)
60 min - Boil - 0.15 g - Lipohop K
^ Lot # LPK110
^ The Malt Miller (UK) CH-03-013
10 min - Boil - 1 g - Irish Moss
^ Lot # 4348
^ Brouwstore (NL)
10 min - Boil - 1 items - Wort Chiller
^ Brouwstore (NL) 057.020.20
Bottling - 13 items - 33 cl Steinie bottle (s...
^ Brouwstore (NL) 017.500.0
Yeast
0.7 pkg - Lallemand (LalBrew) New England
^ Lot # 41306010997711V
^ The Malt Miller (UK) YEA-02-044
```

Recipe Notes

Malt is ordered with standard crush @ The Malt Miller (https://www.themaltmiller.co.uk/).

Batch Notes

```
Brew day
08-08-2021 11:45 added 5.83 gram Calciumchloride.
08-08-2021 11:47 added 0.86 gram Epsom salt.
08-08-2021 11:49 added 0.88 gram Gypsum.
08-08-2021 11:50 strike water pH = 6.14 @ 18.4 C.
08-08-2021 11:59 dough in.
08-08-2021 12:05 mash pH = 5.45 @ 41.9 C.
08-08-2021 12:10 mash pH = 5.38 @ 41.9 C.
08-08-2021 12:22 mash pH = 5.40 @ 38.1 C.
08-08-2021 12:30 mash pH = 5.42 @ 37.6 C.
08-08-2021 12:47 mash pH = 5.38 @ 39.9 C.
08-08-2021 12:57 mash pH = 5.38 @ 38.5 C.
08-08-2021 13:12 mash pH = 5.35 @ 40.5 C.
08-08-2021 13:37 mash pH = 5.35 @ 39.0 C.
08-08-2021 14:00 first runnings SG = 1.072 @ 48.2 C --> 1.082 @ 20 C.
08-08-2021 14:05 mash pH = 5.38 @ 41.9 C.
08-08-2021 14:06 batch sparged with 4.5 L water @ 69 C.
08-08-2021 14:35 collected 16 cm wort --> 8.0 L
08-08-2021 14:41 SG = 1.035 @ 44.1 C --> 1.043 @ 20 C.
08-08-2021 14:52 added 0.14 grams Lipohop-K.
08-08-2021 15:04 start boil.
08-08-2021 15:49 added 6.40 gram Sabro @ 45 minutes.
08-08-2021 15:54 added 6.38 gram Sabro @ 50 minutes.
08-08-2021 15:54 added 1.00 gram Irish moss @ 50 minutes.
08-08-2021 15:54 added wort chiller @ 50 minutes.
```



```
Batch Notes
08-08-2021 15:59 added 6.40 gram Sabro @ 55 minutes.
08-08-2021 15:59 added temperature probe @ 55 minutes.
08-08-2021 16:04 flame out.
08-08-2021 16:25 start hopstand @ 81.0 C. 08-08-2021 16:25 added 12.6 grams Sabro.
08-08-2021 16:45 end hopstand @ 71.5 C.
08-08-2021 17:10 cooled down to 26.2 C with immersion cooler and 15 L tap water.
08-08-2021 17:14 post boil volume = 13.2 cm --> 6.51 L (cold).
08-08-2021 17:18 post boil SG = 1.060 @ 25 C.
08-08-2021 17:25 pH = 5.31 @ 25.1 C.
08-08-2021 20:30 pitched 7.02 grams Lallemand New England yeast @ 17.7 C.
Day 0 in fermentation
08-08-2021 20:30 17.7 C, dp = 0 mm H2O, SG = 1.060, pH = 5.31.
08-08-2021 23:47 16.8 C, dp = 5 mm H2O, no bubbles.
Day 1 in fermentation
09-08-2021 08:41 16.8 C, dp = 5 mm H2O, no bubbles.
09-08-2021 12:51 17.0 C, dp = 5 mm H2O, no bubbles.
09-08-2021 18:22 17.3 C, dp = 5 mm H2O, no bubbles.
09-08-2021 23:42 17.8 C, dp = 5 mm H2O, no bubbles.
Day 2 in fermentation
10-08-2021 08:18 17.0 C, dp = 5 mm H2O, no bubbles, 7 mm Krausen.
10-08-2021 12:28 17.4 C, dp = 5 mm H2O, no bubbles, 7 mm Krausen.
10-08-2021 16:46    16.9 C, dp = 11 mm H2O, no bubbles, 12 mm Krausen.
10-08-2021 19:43 17.3 C, dp = 5 mm H2O, no bubbles, 10 mm Krausen.
10-08-2021 23:11 16.9 C, dp = 0 mm H2O, no bubbles, 10 mm Krausen.
Day 3 in fermentation
11-08-2021 08:53 17.6 C, dp = 0 mm H2O, no bubbles.
11-08-2021 12:50 16.8 C, dp = 0 mm H2O, no bubbles.
11-08-2021 15:35 17.1 C, dp = 0 mm H2O, no bubbles.
11-08-2021 23:08 17.0 C, dp = 0 mm H2O, no bubbles.
Day 4 in fermentation
12-08-2021 08:29 17.9 C, dp = 0 mm H20, no bubbles. 12-08-2021 19:20 16.8 C, dp = 0 mm H20, no bubbles.
12-08-2021 22:59 17.4 C, dp = 0 mm H2O, no bubbles.
Day 5 in fermentation
13-08-2021 08:53 16.9 C, dp = 0 mm H2O, no bubbles. 13-08-2021 17:20 17.9 C, dp = 0 mm H2O, no bubbles. 13-08-2021 23:52 17.0 C, dp = 0 mm H2O, no bubbles.
Day 6 in fermentation
14-08-2021 09:41 17.5 C, dp = 0 mm H2O, no bubbles.
Day 7 in fermentation
15-08-2021 11:00 17.0 C, dp = 0 mm H2O, no bubbles.
15-08-2021 14:27 17.3 C, dp = 0 mm H2O, no bubbles.
15-08-2021 14:28 added 12.78 grams Sabro pellet hops for dry hopping.
15-08-2021 23:54 17.5 C, dp = 0 mm H2O, no bubbles.
Day 8 in fermentation
16-08-2021 08:53 16.9 C, dp = 0 mm H2O, no bubbles.
16-08-2021 16:19 17.3 C, dp = 0 mm H2O, no bubbles.
16-08-2021 23:42 17.6 C, dp = 0 mm H2O, no bubbles.
Day 9 in fermentation
17-08-2021 08:51 17.4 C, dp = 0 mm H2O, no bubbles.
17-08-2021 11:45 17.3 C, dp = 0 mm H2O, no bubbles.
17-08-2021 20:00 17.2 C, dp = 0 mm H2O, no bubbles.
17-08-2021 23:43 17.2 C, dp = 0 mm H2O, no bubbles.
```



Batch Notes

```
Day 10 in fermentation
18-08-2021 09:13 17.1 C, dp = 0 mm H2O, no bubbles.
18-08-2021 17:39 17.0 C, dp = 0 mm H20, no bubbles. 18-08-2021 19:59 20.5 C, dp = 0 mm H20, no bubbles.
18-08-2021 23:45 20.6 C, dp = 0 mm H2O, no bubbles.
Day 11 in fermentation
19-08-2021 08:25 19.7 C, dp = 0 mm H2O, no bubbles. 19-08-2021 15:46 20.0 C, dp = 0 mm H2O, no bubbles. 19-08-2021 23:50 20.5 C, dp = 0 mm H2O, no bubbles.
Day 12 in fermentation
20-08-2021 09:12 20.5 C, dp = 0 mm H2O, no bubbles.
20-08-2021 14:50 20.0 C, dp = 0 mm H2O, no bubbles.
20-08-2021 21:17 19.8 C, dp = 0 mm H2O, no bubbles.
Day 13 in fermentation
21-08-2021 10:12 20.1 C, dp = 0 mm H2O, no bubbles.
21-08-2021 18:37 19.7 C, dp = 0 mm H20, no bubbles.
21-08-2021 23:35 19.7 C, dp = 0 mm H2O, no bubbles.
Day 14 in fermentation
22-08-2021 09:41 19.7 C, dp = 0 mm H20, no bubbles. 22-08-2021 12:33 19.7 C, dp = 0 mm H20, no bubbles.
Bottling day
22-08-2021 12:50 Transferred fementer.
22-08-2021 13:02 20.6 C, dp = 0 mm H2O, SG = 1.005, pH = 4.46.
22-08-2021 14:15 Filled 13 Steinie bottles (33 cl).
Day 0 in conditioning
22-08-2021 14:15 20.1 C
22-08-2021 15:00 18.9 C
22-08-2021 16:00 17.1 C
22-08-2021 18:00 16.1 C
22-08-2021 23:19 16.1 C
Day 1 in conditioning
23-08-2021 08:48 16.9 C
23-08-2021 14:53 17.1 C
23-08-2021 23:58 16.5 C
Day 2 in conditioning
24-08-2021 08:23 16.3 C
24-08-2021 14:17 16.4 C
24-08-2021 22:04 17.2 C
Day 3 in conditioning
25-08-2021 09:07 17.7 C
25-08-2021 14:30 17.7 C
25-08-2021 23:44 16.6 C
Day 4 in conditioning
26-08-2021 08:28 16.4 C
26-08-2021 17:07 16.5 C
26-08-2021 23:04 17.0 C
Day 5 in conditioning
27-08-2021 08:47 17.1 C
27-08-2021 17:30 17.0 C
27-08-2021 23:39 17.0 C
Day 6 in conditioning
28-08-2021 11:03 17.0 C
28-08-2021 17:15 17.0 C
```



Batch Notes

28-	08-	202	21	23	:0	7	17	. 2	C
Day 29- 29- 29-	08- 08-	202 202	21 21	09 16	:4 :3	2	ing 17 17 17	.3	C C
Day 30- 30- 30-	08-	202	21	15	:5	6	in 17 17 17	. 2	C
Day 31- 31- 31-	08- 08-	202 202	21 21	08 17	:2 :0	0	in 17 17 17	.4	C
Day 01- 01- 01-	09- 09-	202 202	21 21	08 18	:4 :0	5	17 17	. 4 . 4	C
Day 02- 02- 02-	09- 09-	202 202	21 21	09 17	:0 :0	3 8	17	. 4 . 4	
Day 03- 03- 03-	09- 09-	202	21 21	08 17	:2	1	ni: 17 17 17	.6	C C
Day 04- 04- 04-	09- 09-	202 202	21 21	09 17	:1 :1	7 5	17 17	.6 .3	C C
Day 05- 05- 05-	09- 09-	202 202	21 21	10	:0 :0	0	17	.3	C C
Day 06- 06- 06-	09- 09-	202	21 21	09 17	:0	0	17 17	.8	C
Day 07- 07- 07-	09- 09-	202 202	21 21	08 18	:0 :3	0 0	16 17	. 7 . 9	C
Day 08- 08- 08-	09-	202	21	08	:1	5	17	. 4	C C
Day 09- 09-	18 09- 09- 09-	ir 202 202 202	n c 21 21 21	on 07 19 23	di :1 :1	tio 5 5 0	ni 16 17 16	ng .5 .9	C. C.
Day 10- 10-	09- 09-	202 202	21 21	08 20	:3 :0	0	17 18	.9	С.



Batch Notes

```
Day 20 in conditioning
11-09-2021 08:30 17.9 C.
11-09-2021 20:30 17.7 C.
11-09-2021 23:15 17.5 C.
Day 21 in conditioning
12-09-2021 08:00 17.0 C.
12-09-2021 16:45 17.7 C.
12-09-2021 16:50 bottles transferred to cellar.
12-09-2021 20:20 20.0 C.
12-09-2021 23:37 20.9 C.
Day 22 in conditioning
13-09-2021 10:58 20.3 C.
13-09-2021 19:51 20.2 C.
13-09-2021 23:55 20.1 C.
Day 23 in conditioning
14-09-2021 08:26 20.9 C.
14-09-2021 19:00 20.6 C.
14-09-2021 23:05 20.7 C.
Day 24 in conditioning
15-09-2021 07:38 20.8 C.
15-09-2021 18:18 20.7 C.
15-09-2021 23:55 20.5 C.
Day 25 in conditioning
16-09-2021 08:01 20.3 C.
16-09-2021 21:23 20.0 C.
16-09-2021 23:30 20.0 C.
Day 26 in conditioning
17-09-2021 08:21 20.1 C.
17-09-2021 16:03 20.0 C.
17-09-2021 22:14 20.5 C.
Day 27 in conditioning
18-09-2021 09:01 20.5 C.
18-09-2021 16:02 20.3 C.
18-09-2021 23:56 20.6 C.
Day 28 in conditioning
19-09-2021 13:03 20.2 C.
19-09-2021 17:00 20.1 C.
19-09-2021 21:13 20.9 C.
Day 29 in conditioning
20-09-2021 09:17 20.3 C.
20-09-2021 12:02 20.2 C.
20-09-2021 22:20 20.9 C.
Day 30 in conditioning
21-09-2021 09:11 20.0 C.
21-09-2021 13:34 19.8 C.
21-09-2021 20:33 19.7 C.
21-09-2021 23:26 19.7 C.
Day 31 in conditioning
22-09-2021 06:59 19.5 C.
22-09-2021 17:40 19.5 C.
22-09-2021 23:25 19.7 C.
Day 32 in conditioning
```

23-09-2021 08:22 19.6 C.



Batch Notes

23-09-2021 14:03 19.6 C. 23-09-2021 19:59 19.6 C. 23-09-2021 23:58 19.7 C. Day 33 in conditioning 24-09-2021 08:19 19.7 C. 24-09-2021 14:31 19.6 C. 24-09-2021 23:41 20.0 C. Day 34 in conditioning 25-09-2021 07:29 20.3 C. 25-09-2021 19:15 20.5 C. 25-09-2021 22:30 20.6 C. Day 35 in conditioning 26-09-2021 08:34 20.9 C. 26-09-2021 15:19 20.9 C. 26-09-2021 23:09 20.2 C. Day 36 in conditioning 27-09-2021 08:27 20.4 C. 27-09-2021 13:07 20.4 C. 27-09-2021 20:33 20.6 C. Day 37 in conditioning 28-09-2021 08:09 19.9 C. 28-09-2021 15:02 19.7 C. 28-09-2021 23:45 19.5 C. Day 38 in conditioning 29-09-2021 08:37 19.0 C. 29-09-2021 12:58 19.9 C. 29-09-2021 16:07 19.6 C. 29-09-2021 22:00 19.2 C. Day 39 in conditioning 30-09-2021 10:33 19.1 C. 30-09-2021 16:02 19.7 C. 30-09-2021 23:23 19.3 C. Day 40 in conditioning 01-10-2021 08:42 19.6 C. 01-10-2021 13:15 19.5 C. 01-10-2021 19:06 19.5 C. 01-10-2021 23:49 19.4 C. Day 41 in conditioning 02-10-2021 09:03 19.3 C. 02-10-2021 14:49 19.2 C. 02-10-2021 18:43 19.1 C. 02-10-2021 23:01 19.1 C. Day 42 in conditioning 03-10-2021 09:05 19.9 C. 03-10-2021 17:45 19.7 C. 03-10-2021 23:01 19.5 C.

Extra Measured Values

Strike Temperature

Strike Water pH 6.14

67.2

Batch Los



Batch Log					
8 August 2021	Brew Date				
8 August 2021	Fermentation Start				
8 August 2021 11:59	Status: Brewing				
8 August 2021 20:30	SV = 17.0 C.				
15 August 2021 14:28	Added 12.76 grams Sabro pellet hops for dry hopping.				
18 August 2021 17:40	SV = 21.0 C				
18 August 2021 20:01	SV = 20.5 C				
22 August 2021	Bottling Date				
22 August 2021 14:15	Filled 13 Steinie bottles (33 cl).				
22 August 2021 14:16	SV = 17.0 C				
3 October 2021 23:03	Status: Completed				
19 September 2025 20:06	Status: Archived				

Taste

3.2 / 5.0