

32 Never Give Up! v2 - 8.7%

Belgian Golden Strong Ale

Brewer: The Thirsty Otter

Type: All Grain

IBU : 28 (Tinseth)
 BU/GU : 0.39
 Colour : 7 EBC
 Carbonation : 2.8 CO2-vol

Pre-Boil Gravity : 1.020
 Original Gravity : 1.070
 Total Gravity : 1.073
 Final Gravity : 1.007

Fermentables (172 g)

152 g - Pils 3.5 EBC (88.4%)
 ^ Lot # 20210710
 ^ Brouwmaatje (NL) 051.002.4
 20 g - 10 min - Boil - Sugar, Table (Sucrose)...
 ^ Albert Heijn (NL)
 5 g - Bottling - Sugar, Table (Sucrose) 2 EBC
 ^ Albert Heijn (NL)

Hops (3.3 g)

60 min - 0.3 g - Cascade (T90) - 7.5% (10 IBU)
 ^ Brouwmaatje (NL) BM-BL.053.148.3/100
 30 min - 0.5 g - Cascade (T90) - 7.5% (13 IBU)
 ^ Brouwmaatje (NL) BM-BL.053.148.3/100
 15 min - 0.7 g - Saaz - 3.6% (6 IBU)
 ^ Lot # T9020044SAA
 ^ Brouwmaatje (NL) BM-HUM.420000 Humlegarden...

Dry Hops

6 days - 1.8 g - Cascade (T90) - 7.5%
 ^ Brouwmaatje (NL) BM-BL.053.148.3/100

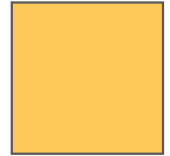
Miscellaneous

Mash - 0.005 g - Baking Soda (NaHCO3)
 ^ Lot # 41190621/3
 ^ Brouwstore (NL) 003.106.2
 Mash - 0.107 g - Calcium Chloride (CaCl2) 33...
 ^ Lot # 115038
 ^ Brouwstore (NL) 055.035.0
 Mash - 0.107 g - Canning Salt (NaCl)
 ^ Albert Heijn (NL)
 Mash - 0.094 g - Epsom Salt (MgSO4)
 ^ Lot # /2119000091
 ^ Brouwstore (NL) 055.027.7
 Mash - 0.094 g - Gypsum (CaSO4)
 ^ Brouwmaatje (NL)
 Mash - 0.147 ml - Lactic Acid 80% 80%
 ^ Lot # 20200213
 ^ Brouwstore (NL) 003.002.3
 Mash - 0.603 l - NL Spa Reine Flat Mineral Water
 ^ Lot # 20211005
 ^ AH (NL)
 Sparge - 0.646 l - NL Spa Reine Flat Mineral...
 ^ Lot # 20211005
 ^ AH (NL)
 60 min - Boil - 0.02 g - Lipohop K
 ^ Lot # LPK110
 ^ The Malt Miller (UK) CH-03-013
 10 min - Boil - 0.134 g - Irish Moss
 ^ Lot # 4348

02 PET Bottle 1L (60min) (rev 4)

Batch Size : 0.75 L
 Boil Size : 2.28 L
 Post-Boil Vol : 0.78 L

Mash Water : 0.46 L
 Sparge Water : 1.97 L
 Boil Time : 60 min
 Total Water : 2.43 L



7 EBC

Brewhouse Efficiency: 94.9%
 Mash Efficiency: 94.9%

Mash Profile

04 High fermentability (60 min)
 70.9 °C - Strike Temp
 65 °C - 60 min - Temperature

Fermentation Profile

01 Ale + DR + Conditioning
 19 °C - 10 days - Primary
 22 °C (2 day ramp) - 4 days - Diacetyl rest
 19 °C - 14 days - Carbonation
 19 °C - 28 days - Conditioning

Water Profile

NL Spa Reine Flat Mineral Water (www.ah.nl) (...
 Ca 111 Mg 30 Na 137 Cl 274 SO 277

SO/Cl ratio: 1
 Mash pH: 2.24
 Sparge pH: 6

Measurements

Mash pH:

Boil Volume:

Pre-Boil Gravity:

Post-Boil Kettle Volume:

Original Gravity: 1.060

Fermenter Top-Up:

Fermenter Volume: 0.75

Final Gravity: 1.002

Bottling Volume: 0.66

Batch #20 - 3 Jul 2022

Batch Notes

03-07-2022 21:30 Pitched 1 gram Lallemmand Abbaye yeast.

Day 0 in fermentation

03-07-2022 21:30 20.4 C, SG = 1.060.

03-07-2022 22:00 18.6 C,

Day 1 in fermentation

04-07-2022 00:00 18.0 C.

04-07-2022 04:00 17.8 C.

04-07-2022 08:00 17.8 C.

04-07-2022 12:00 18.0 C.

04-07-2022 16:00 18.6 C.

04-07-2022 20:00 17.8 C.

Day 2 in fermentation

05-07-2022 00:00 18.5 C.

05-07-2022 04:00 17.8 C.

05-07-2022 08:00 18.4 C.

05-07-2022 12:00 17.9 C.

05-07-2022 16:00 17.9 C.

05-07-2022 20:00 17.9 C.

Day 3 in fermentation

06-07-2022 00:00 17.9 C.

06-07-2022 04:00 18.7 C.

06-07-2022 08:00 17.9 C.

06-07-2022 12:00 18.8 C.

06-07-2022 16:00 18.4 C.

06-07-2022 20:00 17.8 C.

Day 4 in fermentation

07-07-2022 00:00 18.2 C.

07-07-2022 04:00 18.6 C.

07-07-2022 08:00 18.8 C.

07-07-2022 12:00 18.8 C.

07-07-2022 16:00 18.9 C.

07-07-2022 20:00 18.9 C.

Day 5 in fermentation

08-07-2022 00:00 18.9 C.

08-07-2022 04:00 18.9 C.

08-07-2022 08:00 18.5 C.

08-07-2022 12:00 18.3 C.

08-07-2022 16:00 18.3 C.

08-07-2022 20:00 18.8 C.

Day 6 in fermentation

09-07-2022 00:00 17.8 C.

09-07-2022 04:00 18.0 C.

09-07-2022 08:00 18.0 C.

09-07-2022 10:30 Roused the FV.

09-07-2022 12:00 18.2 C.

09-07-2022 16:00 18.7 C.

09-07-2022 20:00 17.8 C.

Day 7 in fermentation

10-07-2022 00:00 17.8 C.

10-07-2022 04:00 17.9 C.

10-07-2022 08:00 17.9 C.

10-07-2022 12:00 17.9 C.

10-07-2022 16:00 18.1 C.

10-07-2022 20:00 18.6 C.

Day 8 in fermentation

11-07-2022 00:00 17.8 C.

11-07-2022 04:00 17.8 C.

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Batch Notes

11-07-2022 08:00 18.0 C.
11-07-2022 08:30 Added 1.82 grams Cascade hops.
11-07-2022 12:00 18.1 C.
11-07-2022 13:30 Roused the FV.
11-07-2022 16:00 18.5 C.
11-07-2022 20:00 18.1 C.

Day 9 in fermentation

12-07-2022 00:00 18.0 C.
12-07-2022 04:00 18.4 C.
12-07-2022 08:00 18.4 C.
12-07-2022 12:00 18.6 C.
12-07-2022 16:00 17.9 C.
12-07-2022 20:00 18.7 C.

Day 10 in fermentation

13-07-2022 00:00 18.5 C.
13-07-2022 04:00 17.9 C.
13-07-2022 08:00 18.4 C.
13-07-2022 12:00 17.8 C.
13-07-2022 16:00 18.7 C.
13-07-2022 20:00 18.2 C.

Day 11 in fermentation

14-07-2022 00:00 19.3 C.
14-07-2022 04:00 19.4 C.
14-07-2022 08:00 19.5 C.
14-07-2022 12:00 19.5 C.
14-07-2022 16:00 19.8 C.
14-07-2022 20:00 19.1 C.

Day 12 in fermentation

15-07-2022 00:00 20.1 C.
15-07-2022 04:00 20.1 C.
15-07-2022 08:00 21.0 C.
15-07-2022 12:00 20.4 C.
15-07-2022 16:00 20.4 C.
15-07-2022 20:00 21.0 C.

Day 13 in fermentation

16-07-2022 00:00 21.0 C.
16-07-2022 04:00 20.9 C.
16-07-2022 08:00 20.5 C.
16-07-2022 12:00 20.3 C.
16-07-2022 16:00 20.3 C.
16-07-2022 20:00 20.3 C.

Day 14 in fermentation

17-07-2022 00:00 20.3 C.
17-07-2022 04:00 20.2 C.
17-07-2022 08:00 20.8 C.
17-07-2022 12:00 20.3 C.
17-07-2022 16:00 20.3 C.
17-07-2022 20:00 20.5 C.

Day 15 in fermentation

18-07-2022 00:00 20.9 C.
18-07-2022 04:00 20.9 C.
18-07-2022 08:00 20.9 C.
18-07-2022 12:00 20.9 C.
18-07-2022 16:00 20.9 C.
18-07-2022 20:00 21.7 C.

Day 16 in fermentation

19-07-2022 00:00 21.3 C.
19-07-2022 04:00 21.7 C.

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Batch Notes

19-07-2022 08:00 21.9 C.
19-07-2022 12:00 21.9 C.
19-07-2022 16:00 21.7 C.
19-07-2022 18:00 18.9 C.
19-07-2022 21:00 19.9 C.
19-07-2022 22:00 18.9 C.
19-07-2022 23:00 19.3 C.

Day 17 in fermentation

20-07-2022 00:00 19.7 C.
20-07-2022 04:00 19.6 C.
20-07-2022 08:00 19.5 C.
20-07-2022 12:00 19.3 C.
20-07-2022 16:00 19.2 C.
20-07-2022 20:00 19.2 C.

Day 18 in fermentation

21-07-2022 00:00 19.1 C.
21-07-2022 04:00 19.8 C.
21-07-2022 08:00 19.2 C.
21-07-2022 12:00 19.7 C.
21-07-2022 16:00 19.0 C.
21-07-2022 20:00 19.3 C.

Day 19 in fermentation

22-07-2022 00:00 19.4 C.
22-07-2022 04:00 19.4 C.
22-07-2022 08:00 19.4 C.
22-07-2022 12:00 19.4 C.
22-07-2022 16:00 19.4 C.
22-07-2022 20:00 19.4 C, dp = 0 mm H2O, SG = 1.002, pH = 4.27

Bottling day

22-07-2022 20:00 Filled 2 Steinie bottles (33 cl).

Day 1 in conditioning

23-07-2022 00:00 19.4 C.
23-07-2022 04:00 19.4 C.
23-07-2022 08:00 19.0 C.
23-07-2022 10:00 18.9 C.
23-07-2022 16:15 18.6 C.
23-07-2022 20:00 19.1 C.

Day 2 in conditioning

24-07-2022 00:00 19.6 C.
24-07-2022 04:00 19.8 C.
24-07-2022 08:00 19.8 C.
24-07-2022 12:00 19.8 C.
24-07-2022 16:00 19.9 C.
24-07-2022 20:00 19.9 C.

Day 3 in conditioning

25-07-2022 00:00 19.9 C.
25-07-2022 04:00 18.6 C.
25-07-2022 08:00 19.9 C.
25-07-2022 12:00 19.9 C.
25-07-2022 16:00 19.7 C.
25-07-2022 20:00 19.8 C.

Day 4 in conditioning

26-07-2022 00:00 19.7 C.
26-07-2022 04:00 19.9 C.
26-07-2022 08:00 19.9 C.
26-07-2022 12:30 19.9 C.
26-07-2022 16:00 19.9 C.
26-07-2022 20:00 19.9 C.

Batch #20 - 3 Jul 2022

Batch Notes

Day 5 in conditioning

27-07-2022 00:00 19.9 C.
27-07-2022 04:00 19.7 C.
27-07-2022 08:00 19.3 C.
27-07-2022 12:00 19.2 C.
27-07-2022 15:30 19.2 C.
27-07-2022 18:30 19.2 C.
27-07-2022 20:30 19.2 C.

Day 6 in conditioning

28-07-2022 01:15 19.2 C.
28-07-2022 04:00 19.0 C.
28-07-2022 08:00 18.5 C.
28-07-2022 11:00 18.4 C.
28-07-2022 13:45 18.4 C.
28-07-2022 16:00 18.4 C.
28-07-2022 20:00 18.8 C.

Day 7 in conditioning

29-07-2022 00:00 18.9 C.
29-07-2022 04:00 18.9 C.
29-07-2022 08:00 18.8 C.
29-07-2022 12:00 18.8 C.
29-07-2022 16:00 18.8 C.
29-07-2022 20:00 19.5 C.

Day 8 in conditioning

30-07-2022 00:00 19.8 C.
30-07-2022 04:00 19.8 C.
30-07-2022 08:00 19.8 C.
30-07-2022 12:00 19.7 C.
30-07-2022 16:00 19.9 C.
30-07-2022 20:00 19.7 C.

Day 9 in conditioning

31-07-2022 00:00 19.3 C.
31-07-2022 04:00 19.5 C.
31-07-2022 08:00 19.6 C.
31-07-2022 12:00 19.6 C.
31-07-2022 16:00 19.7 C.
31-07-2022 20:00 19.9 C.

Day 10 in conditioning

01-08-2022 00:00 19.9 C.
01-08-2022 04:00 19.9 C.
01-08-2022 08:00 19.9 C.
01-08-2022 12:00 19.9 C.
01-08-2022 16:00 19.9 C.
01-08-2022 20:00 19.3 C.

Day 11 in conditioning

02-08-2022 00:00 19.5 C.
02-08-2022 04:00 19.5 C.
02-08-2022 08:00 19.3 C.
02-08-2022 12:00 19.1 C.
02-08-2022 16:00 19.4 C.
02-08-2022 20:00 19.9 C.

Day 12 in conditioning

03-08-2022 00:00 19.7 C.
03-08-2022 04:00 19.9 C.
03-08-2022 08:00 19.4 C.
03-08-2022 12:00 19.8 C.
03-08-2022 16:00 19.8 C.
03-08-2022 20:00 19.6 C.

Batch #20 - 3 Jul 2022

Batch Notes

Day 13 in conditioning

04-08-2022 00:00 19.6 C.
04-08-2022 04:00 19.9 C.
04-08-2022 08:00 19.8 C.
04-08-2022 12:00 19.7 C.
04-08-2022 16:00 19.9 C.
04-08-2022 20:00 19.6 C.

Day 14 in conditioning

05-08-2022 00:00 19.6 C.
05-08-2022 04:00 19.5 C.
05-08-2022 08:00 19.5 C.
05-08-2022 12:00 19.7 C.
05-08-2022 16:00 19.8 C.
05-08-2022 20:00 19.5 C.

Day 15 in conditioning

06-08-2022 00:00 19.7 C.
06-08-2022 04:00 19.6 C.
06-08-2022 08:00 18.9 C.
06-08-2022 12:00 18.8 C.
06-08-2022 16:00 18.9 C.
06-08-2022 20:00 19.1 C.

Day 16 in conditioning

07-08-2022 00:00 19.2 C.
07-08-2022 04:00 19.2 C.
07-08-2022 08:00 18.7 C.
07-08-2022 12:00 18.5 C.
07-08-2022 16:00 18.9 C.
07-08-2022 20:00 19.5 C.

Day 17 in conditioning

08-08-2022 00:00 19.5 C.
08-08-2022 04:00 19.5 C.
08-08-2022 08:00 19.3 C.
08-08-2022 12:00 19.2 C.
08-08-2022 16:00 19.3 C.
08-08-2022 20:00 19.6 C.

Day 18 in conditioning

09-08-2022 00:00 19.7 C.
09-08-2022 04:00 19.7 C.
09-08-2022 08:00 19.6 C.
09-08-2022 12:00 19.5 C.
09-08-2022 16:00 19.7 C.
09-08-2022 20:00 19.8 C.

Day 19 in conditioning

10-08-2022 00:00 19.5 C.
10-08-2022 04:00 19.7 C.
10-08-2022 08:00 19.7 C.
10-08-2022 12:00 19.7 C.
10-08-2022 16:00 19.4 C.
10-08-2022 20:00 19.4 C.

Day 20 in conditioning

11-08-2022 00:00 19.3 C.
11-08-2022 04:00 19.8 C.
11-08-2022 08:00 19.9 C.
11-08-2022 12:00 19.5 C.
11-08-2022 16:00 19.7 C.
11-08-2022 20:00 19.2 C.

Day 21 in conditioning

Batch #20 - 3 Jul 2022

Batch Notes

12-08-2022 00:00 19.8 C.
12-08-2022 04:00 19.8 C.
12-08-2022 08:00 19.5 C.
12-08-2022 12:00 19.4 C.
12-08-2022 16:00 20.0 C.
12-08-2022 20:00 20.0 C.

Day 22 in conditioning

13-08-2022 00:00 20.0 C.
13-08-2022 04:00 19.5 C.
13-08-2022 08:00 19.5 C.
13-08-2022 12:00 19.4 C.
13-08-2022 16:00 19.8 C.
13-08-2022 20:00 19.9 C.

Day 23 in conditioning

14-08-2022 00:00 19.8 C.
14-08-2022 04:00 19.4 C.
14-08-2022 08:00 19.4 C.
14-08-2022 12:00 19.5 C.
14-08-2022 16:00 19.4 C.
14-08-2022 20:00 19.9 C.

Day 24 in conditioning

15-08-2022 00:00 19.9 C.
15-08-2022 04:00 19.7 C.
15-08-2022 08:00 19.9 C.
15-08-2022 12:00 19.6 C.
15-08-2022 16:00 19.3 C.
15-08-2022 20:00 19.6 C.

Day 25 in conditioning

16-08-2022 00:00 19.8 C.
16-08-2022 04:00 19.8 C.
16-08-2022 08:00 19.5 C.
16-08-2022 12:00 19.9 C.
16-08-2022 16:00 19.6 C.
16-08-2022 20:00 18.5 C.

Day 26 in conditioning

17-08-2022 00:00 18.7 C.
17-08-2022 04:00 19.9 C.
17-08-2022 08:00 19.7 C.
17-08-2022 12:00 19.7 C.
17-08-2022 16:00 19.5 C.
17-08-2022 20:00 19.7 C.

Day 27 in conditioning

18-08-2022 00:00 19.9 C.
18-08-2022 04:00 19.9 C.
18-08-2022 08:00 19.9 C.
18-08-2022 12:00 19.9 C.
18-08-2022 16:00 19.6 C.
18-08-2022 20:00 19.5 C.

Day 28 in conditioning

19-08-2022 00:00 19.8 C.
19-08-2022 04:00 19.9 C.
19-08-2022 08:00 19.9 C.
19-08-2022 12:00 19.9 C.
19-08-2022 16:00 19.5 C.
19-08-2022 20:00 18.7 C.

Day 29 in conditioning

20-08-2022 00:00 19.8 C.
20-08-2022 04:00 19.9 C.

Batch #20 - 3 Jul 2022

Batch Notes

20-08-2022 08:00 19.9 C.
20-08-2022 12:00 19.9 C.
20-08-2022 16:00 19.5 C.
20-08-2022 20:00 19.9 C.

Day 30 in conditioning
21-08-2022 00:00 19.4 C.
21-08-2022 04:00 19.4 C.
21-08-2022 08:00 19.4 C.
21-08-2022 12:00 19.3 C.
21-08-2022 16:00 19.3 C.
21-08-2022 20:00 19.5 C.

Day 31 in conditioning
22-08-2022 00:00 19.7 C.
22-08-2022 04:00 19.7 C.
22-08-2022 08:00 19.7 C.
22-08-2022 12:00 19.7 C.
22-08-2022 16:00 19.7 C.
22-08-2022 20:00 19.4 C.

Day 32 in conditioning
23-08-2022 00:00 19.9 C.
23-08-2022 04:00 19.4 C.
23-08-2022 08:00 19.4 C.
23-08-2022 12:00 19.7 C.
23-08-2022 16:00 19.5 C.
23-08-2022 20:00 19.9 C.

Day 33 in conditioning
24-08-2022 00:00 19.8 C.
24-08-2022 04:00 19.9 C.
24-08-2022 08:00 19.5 C.
24-08-2022 12:00 19.9 C.
24-08-2022 16:00 19.7 C.
24-08-2022 20:00 19.9 C.

Day 34 in conditioning
25-08-2022 00:00 19.8 C.
25-08-2022 04:00 19.6 C.
25-08-2022 08:00 19.7 C.
25-08-2022 12:00 19.8 C.
25-08-2022 16:00 19.8 C.
25-08-2022 20:00 19.7 C.

Day 35 in conditioning
26-08-2022 00:00 19.9 C.
26-08-2022 04:00 19.4 C.
26-08-2022 08:00 19.2 C.
26-08-2022 12:00 19.9 C.
26-08-2022 16:00 19.9 C.
26-08-2022 20:00 19.9 C.

Day 36 in conditioning
27-08-2022 00:00 19.7 C.
27-08-2022 04:00 19.7 C.
27-08-2022 08:00 19.7 C.
27-08-2022 12:00 19.5 C.
27-08-2022 16:00 19.5 C.
27-08-2022 20:00 19.6 C.

Day 37 in conditioning
28-08-2022 00:00 19.6 C.
28-08-2022 04:00 19.6 C.
28-08-2022 08:00 19.2 C.
28-08-2022 12:00 19.1 C.

Batch #20 - 3 Jul 2022

Batch Notes

28-08-2022 16:00 19.1 C.
28-08-2022 20:00 19.3 C.

Day 38 in conditioning
29-08-2022 00:00 19.4 C.
29-08-2022 04:00 19.4 C.
29-08-2022 08:00 19.2 C.
29-08-2022 12:00 19.0 C.
29-08-2022 16:00 19.0 C.
29-08-2022 20:00 19.1 C.

Day 39 in conditioning
30-08-2022 00:00 19.2 C.
30-08-2022 04:00 19.2 C.
30-08-2022 08:00 19.2 C.
30-08-2022 12:00 19.2 C.
30-08-2022 16:00 19.2 C.
30-08-2022 20:00 19.6 C.

Day 40 in conditioning
31-08-2022 00:00 19.8 C.
31-08-2022 04:00 19.8 C.
31-08-2022 08:00 19.7 C.
31-08-2022 12:00 19.4 C.
31-08-2022 16:00 19.4 C.
31-08-2022 20:00 19.5 C.

Day 41 in conditioning
01-09-2022 00:00 19.7 C.
01-09-2022 04:00 19.7 C.
01-09-2022 08:00 19.5 C.
01-09-2022 12:00 19.2 C.
01-09-2022 16:00 19.2 C.
01-09-2022 20:00 19.5 C.

Day 42 in conditioning
02-09-2022 00:00 19.7 C.
02-09-2022 04:00 19.7 C.
02-09-2022 08:00 19.6 C.
02-09-2022 12:00 19.3 C.
02-09-2022 16:00 19.3 C.
02-09-2022 20:00 19.7 C.

Extra Measured Values

Strike Water Temperature

Strike Water pH

Sparge Water Temperature

Sparge Water pH

Pitch Temperature 20.4

Batch Log

3 July 2022 Brew Date

3 July 2022 Fermentation Start

3 July 2022 15:50 SV = 18.0 C.

3 July 2022 21:30 SV = 17.0 C.

Batch #20 - 3 Jul 2022

| Batch Log | |
|------------------------|---|
| 3 July 2022 21:30 | Status: Fermenting |
| 11 July 2022 08:30 | Added 1.82 grams Cascade hop pellets for dry hopping. |
| 13 July 2022 20:43 | SV = 18.5 C. |
| 13 July 2022 22:38 | SV = 19.0 C. |
| 14 July 2022 20:18 | SV = 20.0 C. |
| 15 July 2022 06:13 | SV = 21.0 C. |
| 19 July 2022 16:23 | SV = 19.0 C. |
| 22 July 2022 20:00 | Filled 2 Steinie bottles (33 cl). |
| 22 July 2022 | Bottling Date |
| 2 September 2022 23:59 | Status: Completed |