

#35 Groenendael #1 Dark Strong Dubbel /FM20/

- Gravity **19.1 BLG**
- ABV ---
- IBU **21**
- SRM **43.6**
- Style **Belgian Dubbel**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **180 min**
- Evaporation rate **10 %/h**
- Boil size **37.4 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **29.4 liter(s)**
- Total mash volume **37.8 liter(s)**

Steps

- Temp **55 C**, Time **0 min**
- Temp **66 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **29.4 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **0 min** at **55C**
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **71C**
- Keep mash **10 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **37.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|--------|-----|
| Grain | Strzegom Pilzneński | 4.07 kg (44.5%) | 80 % | 4 |
| Grain | Strzegom Pale Ale | 1.27 kg (13.9%) | 79 % | 6 |
| Grain | Maris Otter Pale Malt | 1.23 kg (13.5%) | 83 % | 6 |
| Grain | Weyermann pszeniczny jasny | 0.59 kg (6.5%) | 80 % | 6 |
| Grain | Cara Gold Castlemalting | 0.4 kg (4.4%) | 78 % | 120 |
| Grain | Monachijski Castle | 0.2 kg (2.2%) | 80 % | 15 |
| Grain | Weyermann - Acidulated Malt | 0.16 kg (1.8%) | 80 % | 6 |
| Grain | BESTMALZ - Best Wheat Malt | 0.16 kg (1.8%) | 82 % | 4 |
| Grain | Special B Castle | 0.12 kg (1.3%) | 70 % | 350 |
| Grain | Carafa I Weyermann | 0.1 kg (1.1%) | 70 % | 900 |
| Grain | Chocolate Malt | 0.1 kg (1.1%) | 60 % | 900 |
| Sugar | Candi Sugar, Dark | 0.74 kg (8.1%) | 78.3 % | 542 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|---------|---------|------------|
| Boil | lunga | 14.75 g | 170 min | 11.6 % |
| Boil | East Kent Goldings | 14.53 g | 170 min | 6.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------|-------|-------|--------|------------------|
| FM20 Białe Walonki | Wheat | Slant | 500 ml | Fermentum Mobile |

Notes

- fermentacja
18 -20 w 4 dni
Dec 31, 2016, 11:37 AM