

Doppelbock

- Gravity **19.8 BLG**
- ABV ---
- IBU **21**
- SRM **18.3**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **68.5 C**, Time **60 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **78.2C**
- Add grains
- Keep mash **60 min** at **68.5C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------|-----------------|-------|-----|
| Grain | Munich Malt | 4.75 kg (91.5%) | 80 % | 18 |
| Grain | Melanoiden Malt | 0.22 kg (4.2%) | 80 % | 39 |
| Grain | CaraMunich II | 0.22 kg (4.2%) | 74 % | 80 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Tettnang | 40 g | 60 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|--------|---------|------------|
| Saflager W 34/70 | Lager | Liquid | 2000 ml | Fermentis |