

Doppelbock

- Gravity **23.3 BLG**
- ABV **10.7 %**
- IBU **26**
- SRM **27.6**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **9.4 liter(s)**
- Boil time **120 min**
- Evaporation rate **20 %/h**
- Boil size **14.4 liter(s)**

Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **64 C**, Time **10 min**
- Temp **99 C**, Time **10 min**
- Temp **68 C**, Time **10 min**
- Temp **99 C**, Time **10 min**
- Temp **72 C**, Time **10 min**
- Temp **99 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **10 min** at **64C**
- Keep mash **10 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Keep mash **10 min** at **99C**
- Keep mash **10 min** at **99C**
- Keep mash **10 min** at **99C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **14.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|--------|-----|
| Grain | Soufflet Monach | 4.5 kg (75%) | 79 % | 15 |
| Grain | Melanoiden Malt | 0.9 kg (15%) | 80 % | 80 |
| Grain | Caramunich® typ I | 0.45 kg (7.5%) | 73 % | 80 |
| Grain | Special B Malt | 0.15 kg (2.5%) | 65.2 % | 315 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 18 g | 35 min | 10.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|-------|-------|--------|------------|
| Wyeast 2308 Munich Lager | Lager | Slant | 300 ml | Wyeast |