

Rolator

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **23**
- SRM **3.9**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **20.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **20.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner Malz Best	5 kg (100%)	81 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	20 g	60 min	7 %
Boil	Hallertau Spalt Select	20 g	30 min	3.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 2206 Bavarian Lager	Lager	Slant	300 ml	Wyeast Labs