

Doppelbock

- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **38**
- SRM **17.3**
- Style **Doppelbock**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **15.3 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **20.4 liter(s)**

Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **15.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **3.9 liter(s)** of **76C** water or to achieve **15.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.5 kg (55.2%)	82 %	4
Grain	Simpsons - Imperial	1.5 kg (33.1%)	75 %	50
Grain	Viking Pale Cookie (bursztynowy)	0.3 kg (6.6%)	72 %	25
Grain	Simpsons - Aromatic Malt	0.2 kg (4.4%)	82.5 %	49
Grain	Simpsons - Chocolate Malt	0.03 kg (0.7%)	73 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Northern Brewer	15 g	60 min	11.6 %
Boil	Tradition	20 g	20 min	5.5 %