

helka

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **19**
- SRM **4.5**
- Style **Munich Helles**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **64 C**, Time **60 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	4 kg (87%)	81 %	5
Grain	Weyermann - Vienna Malt	0.5 kg (10.9%)	81 %	8
Grain	Weyermann - Melanoiden Malt	0.1 kg (2.2%)	81 %	53

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Tradition	25 g	60 min	5.6 %
Boil	Hallertau Tradition	10 g	15 min	5.6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis