

Helles

- Gravity **11 BLG**
- ABV ---
- IBU **22**
- SRM **4**
- Style **Munich Helles**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **14 %/h**
- Boil size **29.5 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**
- Temp **68 C**, Time **30 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**
- Keep mash **30 min** at **68C**
- Sparge using **20.3 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	3.68 kg (79.8%)	80.5 %	4
Grain	BESTMALZ - Best Minich	0.51 kg (11.1%)	80.5 %	16
Grain	BESTMALZ - Best Caramel Pils	0.42 kg (9.1%)	75 %	7

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	10 g	60 min	11 %
Boil	lunga	10 g	20 min	11 %
Boil	lunga	10 g	5 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Bavarian Lager	Lager	Liquid	125 ml	Wyeast Labs