Helles

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **22**
- SRM **4.4**
- 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 **15 %/h**
- Boil size **26.4 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **27.5 liter(s)**

Steps

- Temp **63 C**, Time **15 min**
- Temp **66 C**, Time **15 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **22 liter(s)** of strike water to **68.4C**
- Add grains
- Keep mash **15 min** at **63C**
- Keep mash **15 min** at **66C**
- Keep mash **30 min** at **73C**
- Keep mash **2 min** at **78C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.5 kg *(81.8%)*	80 %	4
Grain	Strzegom Wiedeński	0.5 kg *(9.1%)*	79 %	10
Grain	Carabody	0.5 kg *(9.1%)*	75 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Mittelfruh	25 g	60 min	3.8 %
Aroma (end of boil)	Hallertau Mittelfruh	75 g	10 min	3.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
White Labs WLP860-0 Munich Helles	Lager	Liquid	200 ml	White Labs

Extras

Type	Name	Amount	Use for	Time

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Fining	Mech irlandzki	4 g	Boil	10 min
Water Agent	Gips	4 g	Mash	60 min

Notes

- Zacieranie pH 5,5, gotowanie pH 5,0. Fermentacja ok 7 dni w 10st + 4 dni w 16st. Cicha ok 14 dni 1-2st.
  Jan 2, 2025, 5:08 PM