

05C. Rauch Helles

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **23**
- SRM **4.1**
- Style **Munich Helles**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **3 %**
- Size with trub loss **17.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **20.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.57 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **19.5 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **58.8C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **7.8 liter(s)** of **76C** water or to achieve **20.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.8 kg (80%)	81 %	4
Grain	Rauch Malt (Germany)	0.42 kg (12%)	81 %	4
Grain	Strzegom Monachijski typ I	0.21 kg (6%)	79 %	16
Grain	Viking melanoidynowy	0.07 kg (2%)	75 %	60

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	12 g	60 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
oyl-071	Ale	Liquid	100 ml	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCl ₂	3 g	Mash	60 min

Notes

- 7-10 22-24C
14 2C
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