14. Pale Ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **32**
- SRM **6.6**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5.1 kg *(84.9%)*	85 %	7
Grain	Munich Malt	0.34 kg *(5.7%)*	80 %	18
Grain	Weyermann - Melanoiden Malt	0.34 kg *(5.7%)*	81 %	53
Grain	Pszeniczny	0.227 kg *(3.8%)*	85 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	horizon	19 g	60 min	13 %
Boil	Cascade	14 g	10 min	6 %
Boil	Centennial	14 g	10 min	10.5 %
Aroma (end of boil)	Cascade	14 g	0 min	6 %
Aroma (end of boil)	Centennial	14 g	0 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---