

APa

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **38**
- SRM **4.9**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.75 liter(s) / kg**
- Mash size **9.1 liter(s)**
- Total mash volume **12.4 liter(s)**

Steps

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

Mash step by step

- Heat up **9.1 liter(s)** of strike water to **72C**
- Add grains
- Keep mash **60 min** at **64C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **15.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	2.3 kg (69.7%)	85 %	7
Grain	Weyermann pszeniczny jasny	0.5 kg (15.2%)	80 %	6
Grain	Weyermann - Carapils	0.35 kg (10.6%)	78 %	4
Grain	Płatki owsiane	0.15 kg (4.5%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	60 min	15.5 %
Boil	Willamette	15 g	15 min	5 %
Aroma (end of boil)	Citra	15 g	5 min	12 %
Dry Hop	Citra	15 g	4 day(s)	12 %
Dry Hop	Willamette	15 g	4 day(s)	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Slant	125 ml	Fermentis

Extras

Type	Name	Amount	Use for	Time
Spice	Skorki	10 g	Boil	15 min
Flavor	Trawa cytrynowa	5 g	Boil	15 min