

AAA

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU ---
- SRM **14.1**
- Style **American Amber Ale**

Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

Steps

- Temp **62 C**, Time **50 min**
- Temp **72 C**, Time **90 min**
- Temp **77 C**, Time **15 min**

Mash step by step

- Heat up **27 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **50 min** at **62C**
- Keep mash **90 min** at **72C**
- Keep mash **15 min** at **77C**
- Sparge using **32.6 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Malteurop Pilsner	6 kg (66.7%)	--- %	4
Grain	Optima Monachijski	2 kg (22.2%)	--- %	19
Grain	Strzegom Karmel 600	0.5 kg (5.6%)	68 %	601
Grain	Optima karmelowy jasny	0.5 kg (5.6%)	--- %	25

Hops

Use for	Name	Amount	Time	Alpha acid
Dry Hop	Citra	50 g	7 day(s)	12 %
Dry Hop	Simcoe	50 g	7 day(s)	13.2 %
Dry Hop	Cascade	50 g	7 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis