

AAA ver 2,0

- Gravity **14.9 BLG**
- ABV ---
- IBU **28**
- SRM **12.2**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **2 %**
- Size with trub loss **23.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **50 C**, Time **10 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **10 min** at **50C**
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	3 kg (54.5%)	74.84 %	13
Grain	Pilsner (Weyermann)	2 kg (36.4%)	82.23 %	7
Grain	Carahell (Weyermann)	0.5 kg (9.1%)	75.74 %	92

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	9.5 %
Dry Hop	Citra	25 g	7 day(s)	12 %
Dry Hop	Fuggles	25 g	7 day(s)	4.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Dry	11 g	---