

ALA

- Gravity **12.4 BLG**
- ABV ---
- IBU **50**
- SRM **4.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **45 min**
- Temp **79 C**, Time **5 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **79C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.6 kg (95.8%)	79 %	6
Grain	Acid Malt	0.2 kg (4.2%)	58.7 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	15 g	60 min	17 %
Boil	Sorachi Ace	20 g	30 min	9 %
Boil	Sorachi Ace	10 g	10 min	9 %
Boil	Sorachi Ace	15 g	5 min	9 %
Boil	Sorachi Ace	15 g	0 min	9 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	12 g	Fermentis