

asd

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **67**
- SRM **6.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

Steps

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

Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	3.5 kg (74.5%)	--- %	6
Grain	wiedenski	1 kg (21.3%)	--- %	10
Grain	karmelowy	0.2 kg (4.3%)	--- %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	warrior	25 g	80 min	16 %
Aroma (end of boil)	Cascade PL	50 g	5 min	5.2 %
Boil	ekuanot	10 g	5 min	11 %

Yeasts

Name	Type	Form	Amount	Laboratory
safale 04	Ale	Dry	30 g	safale