

APAcz

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **40**
- SRM **4.1**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **2 %**
- Size with trub loss **31.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **35.5 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **77C**
- Sparge using **23.5 liter(s)** of **76C** water or to achieve **35.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	6 kg (100%)	80 %	6

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga	10 g	90 min	11 %
Boil	lunga	32 g	45 min	11 %
Boil	Centennial	20 g	10 min	7.8 %
Boil	Centennial	20 g	0 min	7.8 %
Dry Hop	Cascade	50 g	3 day(s)	8.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	20 g	Fermentis