

APA CASCADE

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **24**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.11 kg (62.2%)	80 %	5
Grain	Viking Pilsner malt	1.89 kg (37.8%)	82 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	35 g	30 min	4 %
Boil	Cascade	30 g	15 min	6 %
Aroma (end of boil)	Lublin (Lubelski)	5 g	5 min	4 %
Aroma (end of boil)	Cascade	30 g	3 min	6 %
Whirlpool	Cascade	40 g	1 min	6 %
Whirlpool	Lublin (Lubelski)	10 g	1 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11.51 g	---