

APA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **41**
- SRM **4.3**

Batch size

- Expected quantity of finished beer **500 liter(s)**
- Trub loss **5 %**
- Size with trub loss **525 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **632.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **397.5 liter(s)**
- Total mash volume **530 liter(s)**

Steps

- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **397.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **30 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **367.5 liter(s)** of **76C** water or to achieve **632.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	100 kg (75.5%)	80 %	5
Grain	Pszeniczny v	25 kg (18.9%)	85 %	4
Grain	CaraBody	7.5 kg (5.7%)	10 %	8

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	250 g	60 min	9.5 %
Boil	Citra	250 g	60 min	12 %
Boil	Cascade	250 g	60 min	6 %
Aroma (end of boil)	Amarillo	250 g	10 min	9.5 %
Aroma (end of boil)	Citra	250 g	10 min	12 %
Aroma (end of boil)	Cascade	250 g	10 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	250 g	Fermentis