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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **35**
- SRM **4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.4 liter(s)**
- Total mash volume **11.2 liter(s)**

Steps

- Temp **63 C**, Time **45 min**
- Temp **70 C**, Time **15 min**

Mash step by step

- Heat up **8.4 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **70C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	0.8 kg (28.6%)	81 %	4
Grain	Viking Pale Ale malt	2 kg (71.4%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	5 g	50 min	14.3 %
Boil	Nelson Sauvín	10 g	10 min	11.2 %
Boil	Amarillo	15 g	5 min	14.3 %
Boil	Nelson Sauvín	10 g	5 min	11.2 %
Dry Hop	Nelson Sauvín	30 g	3 day(s)	11.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale