

## t1

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **19**
- SRM **6**
- 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 **10 %/h**
- Boil size **26.4 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 **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **4 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **4 min** at **76C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (50%)	80 %	5
Grain	Weyermann - Pilsner Malt Premium	2 kg (40%)	81 %	3
Grain	Weyermann - Caraamber	0.5 kg (10%)	75 %	65

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	15 g	60 min	7.4 %
Boil	Cascade	15 g	30 min	6 %
Aroma (end of boil)	Citra	15 g	0 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11.5 g	Fermentis