

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **59**
- SRM **3.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **48 liter(s)**
- Trub loss **5 %**
- Size with trub loss **55.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **68.9 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **60 liter(s)**
- Total mash volume **72 liter(s)**

Steps

- Temp **70 C**, Time **60 min**

Mash step by step

- Heat up **60 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **60 min** at **70C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **68.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	12 kg (100%)	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	100 g	60 min	12.7 %
Boil	Columbus/Tomahawk/Zeus	100 g	5 min	10.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew Voss Kveik	Ale	Slant	50 ml	Lallemand