- Gravity 12.6 BLG
- ABV **5.1** %
- IBU **33**
- SRM 4.5
- Style American Pale Ale

## **Batch size**

- Expected quantity of finished beer 18 liter(s)
- Trub loss 5 %
- Size with trub loss 18.9 liter(s)
- · Boil time 60 min
- Evaporation rate 15 %/h
- Boil size 23.8 liter(s)

# **Mash information**

- Mash efficiency 87 %
- Liquor-to-grist ratio 3 liter(s) / kg Mash size 11.7 liter(s)
- Total mash volume 15.6 liter(s)

# **Steps**

- Temp 62 C, Time 40 min
  Temp 72 C, Time 20 min
- Temp **77 C**, Time **1 min**

# Mash step by step

- Heat up 11.7 liter(s) of strike water to 69C
- Add grains
- Keep mash 40 min at 62C
- Keep mash 20 min at 72C
- Keep mash 1 min at 77C
- Sparge using 16 liter(s) of 76C water or to achieve 23.8 liter(s) of wort

## **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.7 kg (94.9%)	80 %	5
Grain	Biscuit Malt	0.2 kg <i>(5.1%)</i>	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	12.5 %
Boil	Styrian Golding	15 g	10 min	3.5 %
Aroma (end of boil)	Styrian Golding	35 g	1 min	3.5 %

#### **Yeasts**

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