### **IPA**

- Gravity 18 BLG
- ABV 7.7 %
- IBU **33**
- SRM 7.4

#### **Batch size**

- Expected quantity of finished beer 20 liter(s)
- Trub loss 5 %
- Size with trub loss 21 liter(s)
- Boil time 60 min
- Evaporation rate 10 %/h
- Boil size 25.3 liter(s)

### Mash information

- Mash efficiency 75 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 21.9 liter(s)
- Total mash volume 29.2 liter(s)

#### Steps

- Temp 53 C, Time 15 min
  Temp 67 C, Time 90 min
  Temp 72 C, Time 10 min

# Mash step by step

- Heat up 21.9 liter(s) of strike water to 58.5C
- Add grains
- Keep mash 15 min at 53C
- Keep mash 90 min at 67C
- Keep mash 10 min at 72C
- Sparge using 10.7 liter(s) of 76C water or to achieve 25.3 liter(s) of wort

### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7 kg (95.9%)	80 %	5
Grain	Aroma CastleMalting	0.3 kg <i>(4.1%)</i>	78 %	100

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	30 g	60 min	10.5 %
Boil	Challenger	15 g	15 min	7 %
Boil	Fuggles	15 g	3 min	4.5 %

#### **Yeasts**

Name	Туре	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis

# **Extras**

Туре	Name	Amount	Use for	Time
Water Agent	gips	4 g	Mash	

## Notes

· Glps dodany od początku zacierania

