# **APA 76/77**

- · Gravity 12.4 BLG
- ABV 5 %
- IBU **34**
- SRM **3.4**
- 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 69 C, Time 60 min

# Mash step by step

- Heat up 60 liter(s) of strike water to 73.9C
- Add grains
- Keep mash 60 min at 69C
- Sparge using 20.9 liter(s) of 76C water or to achieve 68.9 liter(s) of wort

#### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	9 kg <i>(75%)</i>	80 %	5
Grain	Oats, Flaked	3 kg <i>(</i> 25% <i>)</i>	80 %	2

# Hops

Use for	Name	Amount	Time	Alpha acid
Boil	amora preta	35 g	30 min	11.1 %
Boil	Columbus/Tomahawk/Zeus	35 g	30 min	10.7 %
Whirlpool	Motueka	100 g	30 min	7 %

#### **Yeasts**

Name	Туре	Form	Amount	Laboratory
WLP518 - Opshaug Kveik Ale	Ale	Slant	50 ml	White Labs

# **Extras**

Туре	Name	Amount	Use for	Time
Flavor	mango	2550 g	Secondary	7 day(s)

### **Notes**

- · do 76 zupa chmielowa
  - do 77 mango
  - do 76/77 chmiel na zimno (motueka po 50g)

