

# Spontan

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **40**
- SRM **4.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **10 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **80 C**, Time **10 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **80C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (71.4%)	80 %	5
Grain	Bestmalz Carmel Pils	2 kg (28.6%)	75 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	6 %
Boil	Citra	15 g	20 min	13 %
Boil	Amarillo	15 g	20 min	9.5 %
Whirlpool	Citra	35 g	30 min	13 %
Dry Hop	Citra	50 g	3 day(s)	12 %
Dry Hop	Amarillo	35 g	3 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis