

## PA

---

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **50**
- SRM **5.9**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

### Steps

- Temp **66 C**, Time **65 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **24 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **65 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	8 kg (100%)	85 %	7

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	30 g	60 min	6 %
Boil	Simcoe	30 g	60 min	13.2 %
Boil	Citra	30 g	5 min	12 %
Boil	independence blend	28 g	5 min	4.7 %

### Yeasts

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