

Apa

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **43**
- SRM **2.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **74 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **74C**
- Sparge using **23.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Lager	5 kg (100%)	75 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	7 %
Boil	Citra	30 g	30 min	13 %
Aroma (end of boil)	Citra	30 g	0 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lutra OYL-071	Ale	Slant	100 ml	Fm