

Ala pils ala ipa ale na exp 2/20 i lager w sumie

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **31**
- SRM **3.1**
- Style **German Pilsner (Pils)**

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 **87 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **19.4 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **19.4 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4.55 kg (93.8%)	82 %	4
Grain	Viking Wheat Malt	0.3 kg (6.2%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Dry Hop	PolishHops 2/20	60 g	2 day(s)	11.2 %
Whirlpool	PolishHops 2/20	15 g	1 min	11.2 %
Aroma (end of boil)	PolishHops 2/20	15 g	5 min	11.2 %
Aroma (end of boil)	PolishHops 2/20	15 g	15 min	11.2 %
Boil	PolishHops 2/20	20 g	60 min	11.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	23 g	Fermentis