

# PILS

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **23**
- SRM **2.6**
- Style **Vienna Lager**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.1 liter(s)**
- Boil time **75 min**
- Evaporation rate **15 %/h**
- Boil size **34.2 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **28.5 liter(s)**
- Total mash volume **34.2 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **28.5 liter(s)** of strike water to **55.2C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pilsen Malt	5 kg (87.7%)	80.5 %	2
Grain	Briess - Carapils Malt	0.7 kg (12.3%)	74 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Puławski	15 g	60 min	8 %
Whirlpool	Puławski 80*	45 g	30 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
safale w34/70	Lager	Dry	11.5 g	safale

## Extras

Type	Name	Amount	Use for	Time
Fining	IRISH MOSS	5 g	Boil	10 min