

# PILS

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **36**
- SRM **4**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **19.8 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **5 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **19.6 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (66.7%)	80 %	4
Grain	Strzegom Monachijski typ I	1 kg (22.2%)	79 %	16
Grain	Pszeniczny	0.2 kg (4.4%)	85 %	4
Grain	Crystal 150 Castle Malting	0.2 kg (4.4%)	75 %	---
Grain	zakwaszający	0.1 kg (2.2%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Waimea	15 g	50 min	17.3 %
Aroma (end of boil)	Waimea	30 g	5 min	17.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	10 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc T	1 g	Boil	10 min