

# PILS

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **3.5**
- Style **Classic American Pilsner**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **1 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **28.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **26.3 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **53.8C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (95.2%)	80 %	4
Grain	Weyermann - Carapils	0.25 kg (4.8%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Willamette	50 g	60 min	5 %
Boil	Willamette	25 g	15 min	5 %
Boil	Willamette	15 g	5 min	5 %
Aroma (end of boil)	Premiant	10 g	5 min	2.53 %

## Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
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Fining	Whirlfloc T	0.5 g	Boil	10 min
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