

# Pils Polski

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **45**
- SRM **4.4**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **56C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3 kg (75%)	82 %	4
Grain	Viking Munich Malt	1 kg (25%)	78 %	18

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	25 g	60 min	13 %
Boil	Cascade PL	25 g	10 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa - Czech Pilsner	Lager	Dry	11.5 g	Gozdawa

## Notes

- 7 dni - fermentacja burzliwa w 10 st. C
  - 7 dni - fermentacja cicha w 7 st. C
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