

# Zwykły pils

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **47**
- SRM **4.3**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **5 %/h**
- Boil size **18.5 liter(s)**

## Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **4.37 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **21.5 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **5 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (75%)	81 %	4
Grain	Vienna Malt	1 kg (25%)	78 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	80 min	11 %
Aroma (end of boil)	Saaz (Czech Republic)	20 g	10 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	10 min