

# Pils chmielony

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- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **189**
- SRM **4.1**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **80 liter(s)**
- Trub loss **5 %**
- Size with trub loss **84 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **101.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **67.5 liter(s)**
- Total mash volume **90 liter(s)**

## Steps

- Temp **55 C**, Time **30 min**
- Temp **63 C**, Time **15 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **67.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **30 min** at **55C**
- Keep mash **15 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **56.2 liter(s)** of **76C** water or to achieve **101.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	14 kg (62.2%)	82 %	4
Grain	Viking Wheat Malt	7 kg (31.1%)	83 %	5
Grain	Weyermann - Carapils	1.5 kg (6.7%)	78 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	300 g	60 min	10 %
Boil	Oktawia	300 g	30 min	7.1 %
Boil	Oktawia	500 g	15 min	7.1 %
Boil	Oktawia	500 g	5 min	7.1 %
Whirlpool	Oktawia	200 g	10 min	7.1 %