

# gruby\_pils

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **49**
- SRM **3.1**
- Style **Bohemian Pilsener**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **51 C**, Time **15 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **45 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **15 min** at **62C**
- Keep mash **45 min** at **72C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	4 kg (100%)	81 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	45 min	6.1 %
Boil	Marynka	10 g	45 min	8 %
Boil	Lublin (Lubelski)	50 g	15 min	3.7 %
Boil	Challenger	30 g	15 min	6.1 %
Boil	Lublin (Lubelski)	50 g	5 min	3.7 %
Boil	Challenger	50 g	5 min	6.1 %