

## Pils 12

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **36**
- SRM **6.4**
- Style **Bohemian Pilsener**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12.1 liter(s)**

### Steps

- Temp **66 C**, Time **20 min**
- Temp **72 C**, Time **40 min**
- Temp **79 C**, Time **10 min**

### Mash step by step

- Heat up **9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **20 min** at **66C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **79C**
- Sparge using **9.2 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Lager Simpsons	2.5 kg (82.9%)	81 %	3
Grain	Wayermann Wiedeński	0.5 kg (16.6%)	79 %	8
Grain	Simpsons Chocolate Malt	0.015 kg (0.5%)	60 %	1400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	30 min	11 %
Boil	Saaz (Czech Republic)	30 g	5 min	4.5 %
Whirlpool	Saaz (Czech Republic)	50 g	0 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Pilsen Lager	Lager	Slant	100 ml	Wyeast Labs

### Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Water Agent	gips	2 g	Mash	60 min
Water Agent	chlorek wapnia	2 g	Mash	60 min
Fining	whirflock	1 g	Boil	5 min

## Notes

- woda żywiec zdroj:  
wodorowęglany 131  
magnez 5,62  
wapń 41,69  
sód 9,65

Rozcieńczona wodą destylowaną (1cz. mineralnej i 3 cz. destylowanej), do otrzymania 20l:  
wodorowęglany 32,75  
magnez 1,4  
wapń 10,43  
sód 2,42

Po modyfikacji wody:  
wapń 61  
magnez 1  
sód 2  
wodorowęglany 33

niestety o chlorkach i siarczanach informacji brak, zakładam, że są pół na pół  
*Jul 23, 2020, 1:14 PM*