

## Czeski pils

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **29**
- SRM **3.7**
- Style **Classic American Pilsner**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

### Steps

- Temp **64 C**, Time **15 min**
- Temp **72 C**, Time **55 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **16.1 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **15 min** at **64C**
- Keep mash **55 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4.3 kg (93.5%)	81 %	4
Grain	Weyermann - Carapils	0.3 kg (6.5%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Iunga	15 g	60 min	11 %
Aroma (end of boil)	Lublin (Lubelski) PH	50 g	5 min	5.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M84 Bohemian Lager	Lager	Dry	22 g	Jacki

### Extras

Type	Name	Amount	Use for	Time
Water Agent	NaCl	7 g	Boil	60 min
Water Agent	H3PO4	5 g	Mash	90 min

Water Agent	Whirfloc	2 g	Boil	10 min
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