

# Pils by Džako

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **41**
- SRM **4.2**
- Style **Bohemian Pilsener**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **39.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **36 liter(s)**

## Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **28 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **39.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilsner (2 Row) Bel	7 kg (87.5%)	79 %	4
Grain	Weyermann - Carapils	0.5 kg (6.3%)	78 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (6.3%)	79 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	60 g	60 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	40 g	5 min	4.5 %
Boil	Magnum	20 g	60 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Liquid	1000 ml	Fermentis