

# Pils 2021

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **37**
- SRM **4.5**
- Style **German Pilsner (Pils)**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **12 %/h**
- Boil size **28.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5.6 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **33 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **28 liter(s)** of strike water to **67.9C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **5.5 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (80%)	80 %	4
Grain	Strzegom Monachijski typ I	1 kg (20%)	79 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	18 g	50 min	11 %
Boil	Magnum	10 g	40 min	13.5 %
Aroma (end of boil)	Hallertau Tradition	18 g	15 min	5.5 %
Aroma (end of boil)	Hallertau Tradition	25 g	1 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM30 Bohemska rapsodia	Lager	Liquid	30 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirflock	1.25 g	Boil	15 min