

# Crystal Pale Ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **28**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **34 liter(s)**
- Trub loss **3 %**
- Size with trub loss **37.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **43.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30 liter(s)**
- Total mash volume **40 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **30 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **23.8 liter(s)** of **76C** water or to achieve **43.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6 kg (60%)	81 %	4
Grain	Wiedeński	2 kg (20%)	79 %	10
Grain	Oat, Raw	2 kg (20%)	60.9 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Crystal	50 g	80 min	2.4 %
Boil	Magnum	10 g	60 min	12.8 %
Boil	Crystal	50 g	30 min	2.4 %
Boil	Crystal	50 g	15 min	2.4 %
Aroma (end of boil)	Crystal	50 g	2 min	2.4 %
Whirlpool	Crystal	50 g	20 min	2.4 %
Dry Hop	Crystal	100 g	3 day(s)	2.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis

## Extras

Type	Name	Amount	Use for	Time
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Fining	Mech Irlandzki	5 g	Boil	15 min
Fining	Żelatyna	6 g	Secondary	2 day(s)
Water Agent	Witamina C	6 g	Bottling	---
Herb	Chmiele z lodówki	200 g	Boil	15 min